

SEWER SYSTEM MANAGEMENT PLAN

Prepared for
City of San Bruno
December 2011

•

Updated August 2013

SEWER SYSTEM MANAGEMENT PLAN

SEWER SYSTEM MANAGEMENT PLAN

Prepared for
City of San Bruno



Holmes International

December 2011

•

Updated August 2013

SEWER SYSTEM MANAGEMENT PLAN

LIMITATIONS

This document was prepared solely for the City of San Bruno in accordance with professional standards at the time the services were performed and in accordance with the Purchase Order issued by the City of San Bruno dated September 22, 2011.

We have relied on information or instructions provided by the City of San Bruno and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

SEWER SYSTEM MANAGEMENT PLAN

CONTENTS

ACRONYMS	i
Terms	iii
Background and introduction.....	B-1
A. Service Area and Relevant Statistics.....	B-2
B. SSMP Purpose and Objectives	B-3
C. Waste Discharge Requirements.....	B-4
D. What is the City required to do?.....	B-7
E. Regulatory Requirements and Compliance Dates	B-10
SECTION 1 - Goals.....	1-1
A. SWRCB Requirements	1-1
B. RWQCB Requirements.....	1-1
C. City of San Bruno Goals	1-1
SECTION 2 - Organization	2-1
A. SWRCB Requirements	2-1
B. RWQCB Requirements.....	2-1
C. SSMP Responsibility Organization Chart	2-1
D. Chain of Communication for Reporting SSOs	2-5
E. Appendix 2 – Organization Documents.....	2-6
SECTION 3 - Legal Authority	3-1
A. SWRCB Requirements	3-1
B. RWQCB Requirements.....	3-1
C. City of San Bruno Legal Authority.....	3-1
1. Prevent illicit discharges	3-1
2. Require Proper Design and Construction of Sewers and Connections	3-2
3. Sewer Access Authority	3-2
4. Fats, Oils and Grease (FOG) Control.....	3-2
5. Enforcement Authority.....	3-3

6. Control infiltration/inflow (I/I) from Satellite Systems & Laterals	3-3
SECTION 4 - OPERATION AND MAINTENANCE program.....	4-1
A. SWRCB Requirements	4-1
B. RWQCB Requirements.....	4-1
C. City of San Bruno's Operation & Maintenance Program	4-2
1. Sewer System Map.....	4-2
2. Preventive Maintenance Program	4-2
3. Pipeline Maintenance	4-3
4. Pumping (Lift) Station Maintenance.....	4-4
5. Customer Service	4-5
6. Scheduling and Management Information System	4-6
7. Operating Budget	4-6
8. Rehabilitation and Replacement Program	4-6
9. O&M Training.....	4-7
10. Equipment and Critical Replacement Parts	4-1
11. Outreach to Plumbers and Building Contractors.....	4-1
D. Appendix 4 – Operation and Maintenance Program Documents	4-1
SECTION 5 - DESIGN and Performance Provisions	5-1
A. SWRCB Requirements	5-1
B. RWQCB Requirements.....	5-1
C. Sanitary Sewer Design Standards and Specifications.....	5-1
D. Procedures and Standards for Inspection & Testing of New & Rehabilitated Facilities..	5-2
E. Appendix 5 – Design and Performance Provision Documents.....	5-2
SECTION 6 - OVERFLOW EMERGENCY RESPONSE PLAN	6-1
A. SWRCB Requirements	6-1
B. RWQCB Requirements.....	6-1
C. City of San Bruno's Overflow Emergency Response Plan	6-2
1. Notification Procedures.....	6-2
2. Response Program.....	6-3

3. SSO Reporting Procedures.....	6-4
4. Staff and Contractor OERP Awareness and Training.....	6-4
5. Spill Containment and Mitigation Procedure.....	6-4
D. Appendix 6 - Overflow Emergency Response Plan Documents	6-4
SECTION 7 - Fog control program.....	7-1
A. SWRCB Requirements	7-1
B. SWRCB Requirements	7-1
C. Compliance Summary.....	7-2
1. Public Education Outreach Program Implementation Plan.....	7-2
2. FOG Disposal Plan.....	7-3
3. Legal Authority to Prohibit FOG Discharges	7-3
4. BMP, Grease Removal Devices, Recordkeeping, and Reporting Requirements.....	7-4
5. Inspection and Enforcement Authority – FOG Producers	7-5
6. FOG Characterization Assessment and Hot Spot Cleaning Schedule	7-5
7. FOG Source Control Measures	7-5
D. Appendix 7 – FOG Control Program Document	7-6
SECTION 8 - SYSTEM EVALUATION and CAPACITY ASSURANCE PLAN	8-1
A. SWRCB Requirements	8-1
B. SWRCB Requirements	8-1
C. Compliance Summary.....	8-2
1. Evaluation.....	8-2
2. Design Criteria	8-2
3. Capacity Enhancement Measures.....	8-2
4. Capital Improvement Program Schedule	8-2
D. Appendix 8 - System Evaluation and Capacity Assurance Plan Documents	8-3
SECTION 9 - MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS..	9-1
A. SWRCB Requirements	9-1
B. RWQCB Requirements.....	9-1
1. City Metrics to Prioritize SSMP Activities	9-1

2. Monitor Effectiveness of SSMP.....	9-1
3. Metrics to Assess Sewer Maintenance	9-2
4. Metrics to Assess SSMP Performance	9-2
C. Appendix 9 - Monitoring, Measurement, and Program Modifications Documents	9-3
SECTION 10 - SSMP PROGRAM AUDITs	10-4
A. SWRCB Requirements	10-4
B. SWRCB Requirements	10-4
1. Audit Procedures, Roles and Responsibilities.....	10-4
2. SSMP Program Modification/Update Process	10-5
C. Appendix 10 - SSMP Program Audit Documents	10-5
SECTION 11 - Communication Program.....	11-1
A. SWRCB Requirements	11-1
B. RWQCB Requirements.....	11-1
1. SSMP Awareness Communication	11-1
2. Stakeholder Communication – Residential, Commercial and Industrial	11-1
3. Tributary/Satellite Communication.....	11-2
C. Appendix 11 - Communication Program Documents.....	11-2
APPENDIX 1	A1-1
APPENDIX 2	A2-1
APPENDIX 3	A3-1
APPENDIX 4	A4-1
APPENDIX 5	A5-1
APPENDIX 6	A6-1
APPENDIX 7	A7-1
APPENDIX 8	A8-1
APPENDIX 9	A9-7
APPENDIX 10	A10-1
SSMP Audit Checklist	A10-4
APPENDIX 11	A11-1

SEWER SYSTEM MANAGEMENT PLAN

ACRONYMS

AB	Assembly Bill
BACWA	Bay Area Clean Water Agencies
BAT	Best Available Technology
BMP	Best Management Practice
CASA	California Association of Sanitation Agencies
CCTV	Closed-Circuit Television
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan or Program and/or Project
CM	Corrective Maintenance
CMMS	Computerized Maintenance Management System
CWEA	California Water Environment Association
City	City of San Bruno
EPA	Environmental Protection Agency
FOG	Fats, Oils, and Grease
FSE	Food Service Establishments
GIS	Geographical Information System
GPS	Global Positioning System
GWI	Groundwater Induced Infiltration
GWDR	General Waste Discharge Requirements also referred to as Waste Discharge Requirements (WDR)
I/I	Inflow / Infiltration
IWD	Industrial Waste Division
LRO	Legally Responsible Official
MGD	million gallons per day
MRP	Monitoring and Reporting Program
MSC	Municipal Service Center
MSDS	Material Safety Data Sheets
NPDES	National Pollution Discharge Elimination System
O&M	Operation and Maintenance

AcronymsSewer System Management Plan

OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services
Order	SWRCB Order No. 2006-0003-DWQ adopted May 2, 2006
PdM	Predictive Maintenance
PM	Preventative Maintenance
PMP	Preventative Maintenance Program
POTWs	Publicly Owned Treatment Works
R&R	Rehabilitation and Replacement
RDII	Rainfall Dependent Infiltration and Inflow
RWQCB	Regional Water Quality Control Board
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TOC	Table of Contents
USA	Underground Service Alert
WDP	Waste Discharge Permit
WDR	Waste Discharge Requirements also referred to as General Waste Discharge Requirements (GWDR)
WW	Wastewater
WWCS	Wastewater Collection System
WWTP	Wastewater Treatment Plant

SEWER SYSTEM MANAGEMENT PLAN

TERMS

Authorized Representative – The person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or a duly authorized representative of that person.

Blockage – A partial or complete obstruction of wastewater from flowing through a sewer pipeline. A blockage can be caused by debris in the sewer, grease buildup, root intrusion, or a partial or full collapse of the pipeline. If not caught in time, a blockage may cause an SSO. This is also called a stoppage.

California Water Environment Association (CWEA) – CWEA is an association of 8,000-plus professionals in the wastewater industry. CWEA is committed to keeping California's water clean. CWEA trains and certifies wastewater professionals, disseminates technical information, and promotes sound policies to benefit society through protection and enhancement of the water environment. CWEA offers services at the state level and locally through 17 geographical local sections. Through their on-line bookstore, CWEA offers technical references for sewer system operation and maintenance. Website: <http://www.cwea.org/>.

San Francisco Bay Regional Water Quality Control Board – Also known as the Regional Water Board or RWQCB. The mission of this state regulatory agency is to: preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. Website: www.swrcb.ca.gov/rwqcb2/.

Enrollee – The legal public entity that owns a sanitary sewer system, as defined by the GWDR, which has submitted a complete and approved application for coverage under the GWDR. This is also called a sewer system agency or wastewater collection system agency.

Fats, Oils and Grease (FOG) - Fats, oils, and grease that are discharged into the sanitary sewer collection system by Food Service Establishments (FSE), homes, apartments and other sources. FOG is a major cause of blockages leading to increased maintenance and sometimes SSOs.

FOG Control Program – To be implemented at the Enrollee's discretion. May include public education program; plan and schedule for the disposal of FOG; legal authority to prohibit FOG related discharges; requirement to install grease removal devices; authority to inspect grease producing facilities; identification of sanitary sewer system sections subject to FOG blockages and the establishment of a cleaning schedule for each section; development and implementation of source control measures for all sources of FOG.

Geographical Information System (GIS) – A database linked with mapping, which includes various layers of information used by government officials. Examples of information found on a GIS can include a sewer map; sewer features such as pipe location, diameter, material, condition, last date cleaned or repaired. The GIS also typically contains base information such as streets and parcels.

Governing Board – This is the governing board of the sewer entity developing the SSMP. Examples would be the Board of Directors, the City Council, or the County Board of Supervisors.

GWDR – General Waste Discharge Requirements – A GWDR is an authorization to discharge waste with certain conditions, which can be issued on an individual basis or to a group of dischargers. The Statewide General WDR for Sanitary Sewer Systems was adopted by the SWCRB and will be implemented by the Regional Water Boards and SWRCB.

Groundwater Induced Infiltration (GWI) – Infiltration attributed to groundwater entering the sewer system.

Infiltration – The entry of groundwater into a sewer system, including service connections. Infiltration occurs through defects in the piping network including defective or cracked pipes, pipe joints, and through defects in manhole walls and joints.

Inflow – Stormwater runoff entry into a sewer system from such sources as roof leaders, cellars, yard and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, around manhole covers that are not properly sealed to the top of manholes or through holes in the covers, and cross connections from storm sewer systems and catch basins. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than seepage of groundwater into the sewer.

Lateral – The portion of sewer that connects the waste plumbing from a home or business with the sewer main pipeline in the street. Some sewer system agencies own or maintain a portion of the lateral.

Upper Lateral: Portion of lateral from building to property line (or easement line), usually privately owned and maintained.

Lower Lateral: Portion of lateral from property line (or easement line) to sewer mainline in the street or easement. This portion of the lateral is sometimes privately owned and maintained and sometimes publicly owned and maintained.

Monitoring and Reporting Program - The Monitoring and Reporting Program established in the WDR that establishes monitoring, record keeping, reporting and public notification requirements for the GWDR.

Overflow Emergency Response Plan – Identifies measures to protect public health and the environment. A plan must include the following: notification procedure, appropriate response plan, regulatory notification procedures, employee training plan, procedures to address emergency operations, a program that ensures all reasonable steps are taken to contain and prevent discharges.

Private Lateral: That portion of the lateral that is owned and maintained by the private property owner that it serves. Based on an individual agency's ordinance, this may just be the upper lateral or can include the lower lateral.

Preventative maintenance (PM) – Regularly scheduled servicing of machinery, infrastructure or other equipment using appropriate tools, tests, and lubricants. This type of maintenance can prolong the useful life of equipment, infrastructure, and machinery and increase its efficiency by detecting and correcting problems before they cause a breakdown of the equipment, or failure of the infrastructure.

Rainfall Dependent Infiltration and Inflow – Infiltration and inflow that is attributed directly to rainfall.

Regional Water Board – Is a short name for any of the nine regional boards including the San Francisco Bay Regional Water Quality Control Board.

Rehabilitation and Replacement Plan (also referred to as a Capital Improvement Plan) – Identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions to address each deficiency.

Sanitary Sewer Overflow (SSO) – The Statewide GWDR defines an SSO as any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system, including overflows or releases that reach waters of the United States, overflows or releases that *do not* reach water of the United States, and backups into buildings and/or private property caused by conditions within the publicly owned portion of the sewer system.

Sanitary Sewer Overflow Categories

- **Category 1** – All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that equals or exceeds 1,000 gallons; or result in a discharge to a drainage channel and/or surface water; or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.
- **Category 2** – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system
- **Private Lateral Sewage Discharges** – Sewage discharges that are caused by blockages or other problems within a privately owned lateral

Sanitary Sewer System – Any system of gravity sewer pipelines, pump stations, force mains, or other facilities upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities are considered to be part of the sanitary sewer system and discharges into these temporary storage facilities are not to be considered SSOs.

Satellite Collection System – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.

Sewer System Management Plan (SSMP) – A series of written site specific programs that address how a collection system owner/operator conducts their daily business as is outlined in the WDR. Each SSMP is unique for an individual discharger. The plan includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. The plan must also contain a spill response plan. Certification is offered by technically qualified and experienced persons and provides a useful cost effective means for ensuring that SSMPs are developed and implemented appropriately.

Stakeholder - A person or organization that has a vested interest in the development and outcome of the SWRCB Order No. 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

State Water Resources Control Board: Also called the State Board. This is the State agency that developed and passed the GWDR for collection systems and the agency that maintains the SSO reporting web site.

Stoppage – See “Blockage”.

System Evaluation and Capacity Assurance Plan – A required component of an agency’s SSMP and is an important part of any agency’s overall Capital Improvement Plan that provides hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event.

Wastewater Collection System: See “Sanitary Sewer System”.

SEWER SYSTEM MANAGEMENT PLAN

BACKGROUND AND INTRODUCTION

The City of San Bruno was incorporated on December 23, 1914 as a General Law City. San Bruno is governed by the City Council and operates under a Council-Manager form of government. As the policy making body, it has the ultimate responsibility to the people of San Bruno and the implementation of all programs and City services. It approves all ordinances, resolutions, and major contracts, modifies and approves the budget, and has the responsibility of employing a City Manager and City Attorney.

All major changes in direction or emphasis and organizational changes must be approved by the City Council. The City Council sets the policy and adopts the City budget. The City Manager and staff enforce the laws and implement the programs and policies which are established by the City Council.

San Bruno has an elected five member City Council. The Mayor, one of the members of the City Council, is directly elected for a two-year term. Other members are elected for four-year staggered terms with elections held in November of odd numbered years. The Mayor chairs the Council meetings, issues proclamations of recognition, represents the City in certain intergovernmental affairs, and is the ceremonial head of the City. Although the Mayor is expected to provide political leadership on City issues, the Mayor has no greater authority than any other Council member. The Mayor and Council as a collective body is the power of authority. The Mayor and Council members have no authority as individuals; they must act by a majority to achieve their objectives.

The City Council appoints the City Attorney to serve as “corporate” legal counsel to the City as an entity and advises the City Council and City staff on a broad range of municipal issues. These matters typically include open meeting laws, public record laws, conflicts of interests, land use and environmental laws, claims and litigation, municipal elections, employment and labor relations, municipal utilities, public works contracts, code enforcement, resolutions, ordinances and other legal documents. One full-time attorney and a full-time legal secretary staff the City Attorney’s Office.

The San Bruno City Council annually adopts a five-year Capital Improvement Program budget which provides funding for major infrastructure improvements throughout the City. Much of this program is managed by the Public Services Department. The Department manages design of improvements (either by in-house engineering staff or by design consultants) and project construction by contractors.

The Wastewater Division of the Public Services Department is responsible for the wastewater collection system throughout the City including all sewer mains, manholes, and six lift stations. Wastewater treatment is handled under a Joint Powers Agreement with the City of South San Francisco. Approximately 3.4 million gallons of effluent per day are pumped from San Bruno through the Shaw Road Pump Station to be treated at the South San Francisco/San Bruno Water Quality Control Plant. The treatment plant, which is located on Belle Air Road in the City of

South San Francisco, just north of the San Francisco International Airport, is operated and maintained by the City of South San Francisco. Treated wastewater is discharged two miles out into San Francisco Bay via a join outfall pipe shared by the cities of San Bruno, South San Francisco, Millbrae, Burlingame, Colma, and the San Francisco Airport.

This SSMP includes the elements required by both the State Water Resources Control Board (SWRCB) and San Francisco Regional Water Quality Control Board (RWQCB). It is organized following the SWRCB outline. Both SWRCB and RWQCB SSMP requirements are addressed in each element. Requirements language is shown verbatim from the SWRCB SSO WDR and the RWQCB SSMP Development Guide. The SWRCB SSO WDR uses the term “Enrollee” to mean each individual municipal wastewater agency that has completed and submitted the required application for coverage under the WDR (in this case, the Enrollee is the City of San Bruno).

The Public Service Department (PSD) hired Holmes International in 2011, to update the City’s Sewer System Management Plan (SSMP) to assist the City achieve compliance with the SWRCB Statewide General Waste Discharge Requirements (WDR) order No. 2006-0003 for Sanitary Sewer Systems and the San Francisco RWQCB SSMP requirements.

A. Service Area and Relevant Statistics

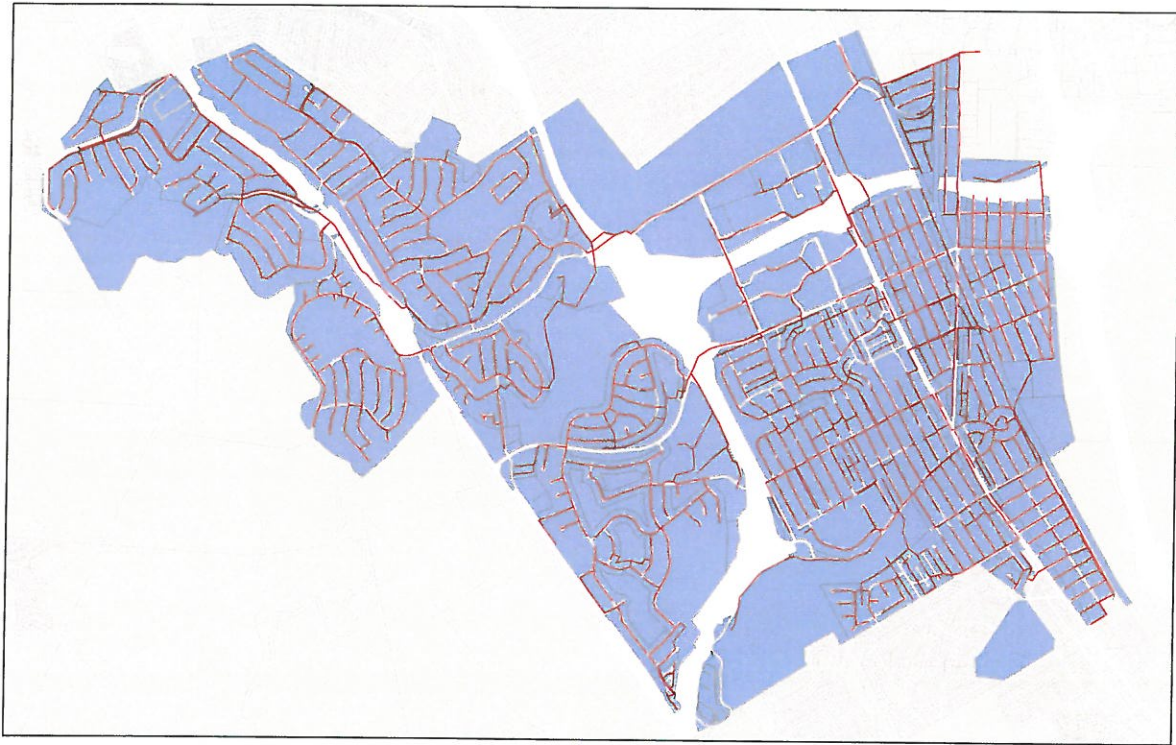
Figure B-1 illustrates the boundary of San Bruno and its sphere of influence. Statistics provided in this SSMP are as of November 2011 and are subject to change over time. Statistics subject to change will be updated in appendices and the City’s website (<http://sanbruno.ca.gov/>).

The City’s Wastewater Division (WWD) is a division of Public Services Department (PSD). The WW Division is responsible for management, operation, maintenance and capacity assurance of the City’s sanitary sewer collection system which includes inspecting, cleaning, repairing and monitoring the gravity sewer lines, force mains and lift station. The Wastewater Division is staffed with personnel ranging from Maintenance Workers and Mechanics to the Wastewater Services Manager.

The City services area is approximately 4.9 square miles, has approximately 10,446 residential, 740 commercial and 3 industrial sewer connections and discharges to South San Francisco/San Bruno Water Quality Control Plant.

The City provides service to approximately 11,189 sewer customers. The wastewater collection and conveyance system consists of 87.6 miles of sewer mainline pipe ranging in size of 5” to 36” in diameter, 2,040 maintenance holes, and six sewage pumping facilities. These wastewater collection and conveyance system components together convey an average daily flow of 3.4 MGD.

Figure B-1
City of San Bruno Service Boundaries



B. SSMP Purpose and Objectives

The purpose of this SSMP is to describe the activities the City of San Bruno uses to manage the City's wastewater collection system to further eliminate preventable SSOs, minimize those SSOs that do occur, and protect both public health and the environment.

- A. To establish goals that align the management, operation and maintenance and capacity assurance activities in a manner that will focus staff efforts to achieve the intended purpose of this SSMP.
- B. To comply with the SWRCB's General Waster Discharge Requirement (WDR) Order No. 2006-0003 issued May 2, 2006 and SF RWQCB requirements.
- C. To describe how the City complies with each element of the SWRCB's WDR/SSMP and RWQCB requirements addressing the following:
 - Provide an introductory summary of the City of San Bruno, the General Waste Discharge Requirement, the project scope and an overview of the City's size, complexity and SSMP responsibility.

- Present the City's organizational structure, identifying SSMP responsibilities, job classifications, contact information, and location of SSMP documents.
- Provide a narrative describing how the City complies with each requirement.
- Present the WDR/SSMP requirements for each element,
- Identify the policies, procedures, and programs the City has in place or will have in place to achieve compliance with the SWRCB WDR/SSMP and RWQCB requirements.
- Provide a living appendix for contact personnel, job descriptions, policies, procedures, and programs that are subject to change over time.
- Provide City's internet websites addresses and physical locations for support/ associated SSMP documents.

C. Waste Discharge Requirements

The California State Water Resources Control Board (SWRCB) adopted a Statewide General Waste Discharge Requirement (WDR) order No. 2006-0003 May 2, 2006. This WDR dictates each publicly owned sanitary sewer system, termed Enrollee, develop, document, and implement a Sewer System Management Plan (SSMP) and make it available to the public and State and Regional Water Quality Control Boards (RWQCB) upon request.

SSMPs are state-mandated requirements for California public collection system agencies that own or operate sanitary sewer systems greater than one (1) mile in length. The goal for these plans is to reduce sanitary sewer overflows (SSOs), protect the public health and the environment, and improve the overall maintenance and management of sewer systems including pumping stations which are also sometimes called lift stations.

The following paragraphs summarize the key elements in the SWRCB's WDR for the development of an SSMP and the implementation requirements for Enrollees. The due dates for various elements of specific relevance to the City of San Bruno are then summarized in a tabular form.

Table B-1 identifies each required SSMP element and the requirements that must be addressed to achieve compliance with each respective/corresponding element.

Table B-1. SWRCB Sewer System Management Plan (SSMP) Requirements

SSMP Elements	Requirements
Goals	<ul style="list-style-type: none"> • Properly manage, operate and maintain all parts of the collection system • Provide capacity to convey base and peak flows • Minimize the frequency and severity of sanitary sewer overflows (SSOs) • Mitigate the impact of SSOs
Organization	<ul style="list-style-type: none"> • Identify agency staff responsible for the SSMP • Identify chain of communication for responding to and reporting SSOs
Legal Authority	<ul style="list-style-type: none"> • Control infiltration and inflow (I/I) from the collection system and laterals • Require proper design and construction of sewers and connections • Require proper sewer installation, testing and inspection • Ability to impose source control requirements
Operation and Maintenance Program	<ul style="list-style-type: none"> • Maintain up-to-date maps • Allocate adequate resources for system operation and maintenance • Prioritize preventative maintenance activities • Identify structural equipment to minimize equipment/facility downtime • Provide staff training on a regular basis
Design and Construction Standards	<ul style="list-style-type: none"> • Identify minimum design and construction standards and specifications • Identify procedures and standards for inspecting and testing
Overflow Emergency Response Plan	<ul style="list-style-type: none"> • Provide SSO notification procedures • Develop and implement a plan to respond to SSOs • Develop procedures to report and notify SSOs • Develop procedures to prevent overflows from reaching surface waters, and to minimize or correct any adverse impact from SSOs

Table B-1. SWRCB Sewer System Management Plan (SSMP) Requirements

SSMP Elements	Requirements
Fats, Oil and Grease (FOG) Control Program	<ul style="list-style-type: none"> • Develop a Fats, Oil and Grease (FOG) control plan, if needed
System Evaluation and Capacity Assurance	<ul style="list-style-type: none"> • Establish a process to assess the current and future capacity requirements • Implement a capital improvement plan to provide hydraulic capacity
Monitoring, Measurement and Program Modifications	<ul style="list-style-type: none"> • Measure the effectiveness of each SSMP element • Monitor each SSMP element and make updates as necessary
SSMP Audits	<ul style="list-style-type: none"> • Conduct an annual audit that includes identifying deficiencies and steps to correct them
Communication Program	<ul style="list-style-type: none"> • Communicate with public (Customers) on SSMP development, implementation and performance and create a plan for communication with tributary/satellite sewer systems

While many of the requirements of the statewide SSO WDR are compatible with the SF Bay Region SSO control program, there are some differences between the programs. On September 29, 2006, Bruce Wolfe, the Executive Officer for Region 2, sent to the sewer system authorities for agencies in the SF Bay Region a letter comparing the two programs. Within this letter was a table that showed how the elements of the two programs compared. That comparison is shown in Table B-2.

Table B-2. Comparison SWRCB and Region 2 SSMP Requirements

SF Bay Water Board Program	Statewide SSO WDR
<p>Ten required elements to be developed over three years:</p> <ul style="list-style-type: none"> ○ Goals ○ Organization ○ Emergency Response Plan ○ FOG Control Program ○ Legal Authority ○ Measures and Activities ○ Design and Construction Standards ○ Capacity Management ○ Monitoring, Measurement, and Program Modifications ○ SSMP Audits 	<p>Eleven required elements to be developed over three years:</p> <ul style="list-style-type: none"> ○ Goals ○ Organization ○ Legal Authority ○ Operation and Maintenance Program ○ Design and Performance Provisions ○ Overflow Emergency Response Plan ○ FOG Control Program ○ System Evaluation and Capacity Assurance Plan ○ Monitoring, Measurement, and Program Modifications ○ SSMP Audits ○ Communications Plan (new)

D. What is the City required to do?

Section D, Provisions, Paragraphs 1 through 15 of the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, describe the requirements for compliance and consequences for non-compliance. These are listed below:

1. The Enrollee must comply with all conditions of the Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.
2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDR. Nothing in the general WDR shall be:
 - (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
 - (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
 - (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
 - (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.
3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.
5. All SSOs must be reported in accordance with Section G of the general WDR.
6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:

- (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;
 - (ii) The Enrollee can identify the cause or likely cause of the discharge event;
 - (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.
 - (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;
 - (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
 - Proper management, operation and maintenance (O&M);
 - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
 - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
 - Installation of adequate backup equipment; and
 - Inflow and Infiltration prevention and control to the extent practicable.
 - (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.
 - (vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.
7. When a SSO occurs, the Enrollee shall take all feasible steps and necessary remedial actions to: 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;

- (ii) Vacuum truck recovery of SSOs and wash down water;
 - (iii) Cleanup of debris at the overflow site;
 - (iv) System modifications to prevent another SSO at the same location;
 - (v) Adequate sampling to determine the nature and impact of the release; and
 - (vi) Adequate public notification to protect the public from exposure to the SSO.
8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
 9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.
 10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
 11. The Enrollee shall develop and implement a written SSMP and make it available to the State and/or RWQCB upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.
 12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
 13. The mandatory elements of the SSMP and their requirements are listed in Table B-1. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable.
 14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule listed below in Table B-5.

In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
P.O. Box 100
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

E. Regulatory Requirements and Compliance Dates

The City of San Bruno's SSMP contains 11 elements and it is designed to meet both the RWQCB and the GWDR requirements. Table B-5 provides the list of the elements of each plan with respective compliance due dates:

Table B-5
Compliance Dates for SSMP Applicable to San Bruno
(10,000< Population<100,000)

SSMP Element		Compliance Dates		Council Approved
		RWQCB	SWRCB	
	Plan and Schedule	NR	11/2/2007	10/9/2007
Element 1	Goals	8/31/2006	11/2/2007	10/9/2007
Element 2	Organization	8/31/2006	11/2/2007	10/9/2007
Element 3	Emergency Response Plan	8/31/2006	5/2/2009	10/9/2007
Element 4	FOG Control Program	8/31/2006	5/2/2009	10/9/2007
Element 5	Legal Authority	8/31/2007	5/2/2009	10/9/2007
Element 6	Measures and Activities (O&M Plan)*	8/31/2007	5/2/2009	10/9/2007
Element 7	Design & Construction Standards (Design and Performance Standard)*	8/31/2007	8/2/2009	10/9/2007
Element 8	Capacity Management	8/31/2008	8/2/2009	10/9/2007
Element 9	Monitoring, Measurement, and Program Modifications	8/31/2008	8/2/2009	10/9/2007
Element 10	Program Audits	8/31/2008	8/2/2009	10/9/2007
Element 11	Communication Program	NR	8/2/2009	
	Final SSMP Certification	NR	8/2/2009	

* variations between the two requirements

NR= not required

SECTION 1 - GOALS

A. SWRCB Requirements

The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

B. RWQCB Requirements

Each wastewater collection system agency shall, at a minimum, develop goals for the Sewer System Management Plan as follows:

1. To properly manage, operate, and maintain all parts of the wastewater collection system
2. To provide adequate capacity to convey peak flows
3. To minimize the frequency of SSOs
4. To mitigate the impact of SSOs

C. City of San Bruno Goals

The City has established eight goals to guide the development, implementation and success of the City's SSMP. These goals are designed to facilitate and target the management, operation and maintenance of the sanitary sewer collection system in a manner that will sustain the infrastructure, protect public health and the environment, and achieve compliance with State Water Resources Control Board's General Waste Discharge Requirement (GWDR) for Sanitary Sewer Systems and the San Francisco Bay Regional Water Quality Control Board (RWQCB) requirements. These goals include:

1. To create a SSMP development plan and implementation schedule.
2. To properly manage, operate, and maintain all portions of the Cities wastewater collection system.
3. To provide adequate capacity to convey peak wastewater flows.
4. To minimize the frequency and volume of sanitary sewer overflows (SSO).
5. To contain SSOs to the extent feasible.
6. To minimize public contact with SSOs.
7. To mitigate the impacts that are associated with all SSOs that may occur.
8. To comply with all applicable regulatory notification and reporting requirements.

SECTION 2 - ORGANIZATION

A. SWRCB Requirements

The Sewer System Management Plan (SSMP) must identify:

1. The name of the agency's responsible or authorized representative.
2. The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
3. The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services [OES]).

B. RWQCB Requirements

Each wastewater collection system agency shall, at a minimum, provide information regarding organization:

1. Identify agency staff responsible for implementing, managing, and updating the SSMP
2. Identify chain of communication for responding to SSOs
3. Identify chain of communication for reporting SSOs

C. SSMP Responsibility Organization Chart

The SSMP Responsibility Organization Chart for the City is illustrated in Figure 2-1.

General Position Description – SSMP Responsibilities

- **City Council:** The City of San Bruno was incorporated on December 23, 1914 as a General Law City. San Bruno is governed by the City Council and operates under a Council-Manager form of government. As the policy making body, it has the ultimate responsibility to the people of San Bruno and the implementation of all programs and City services. It approves all ordinances, resolutions, and major contracts, modifies and approves the budget, and has the responsibility of employing a City Manager and City Attorney.

All major changes in direction or emphasis and organizational changes must be approved by the City Council. The City Council sets the policy and adopts the City budget. The

City Manager and staff enforce the laws and implement the programs and policies which are established by the City Council. The City Council has the responsibility and authority for funding and final approval of this SSMP. All major changes in direction or emphasis and organizational changes must be approved by the City Council. The City Council sets the policy and adopts the City budget.

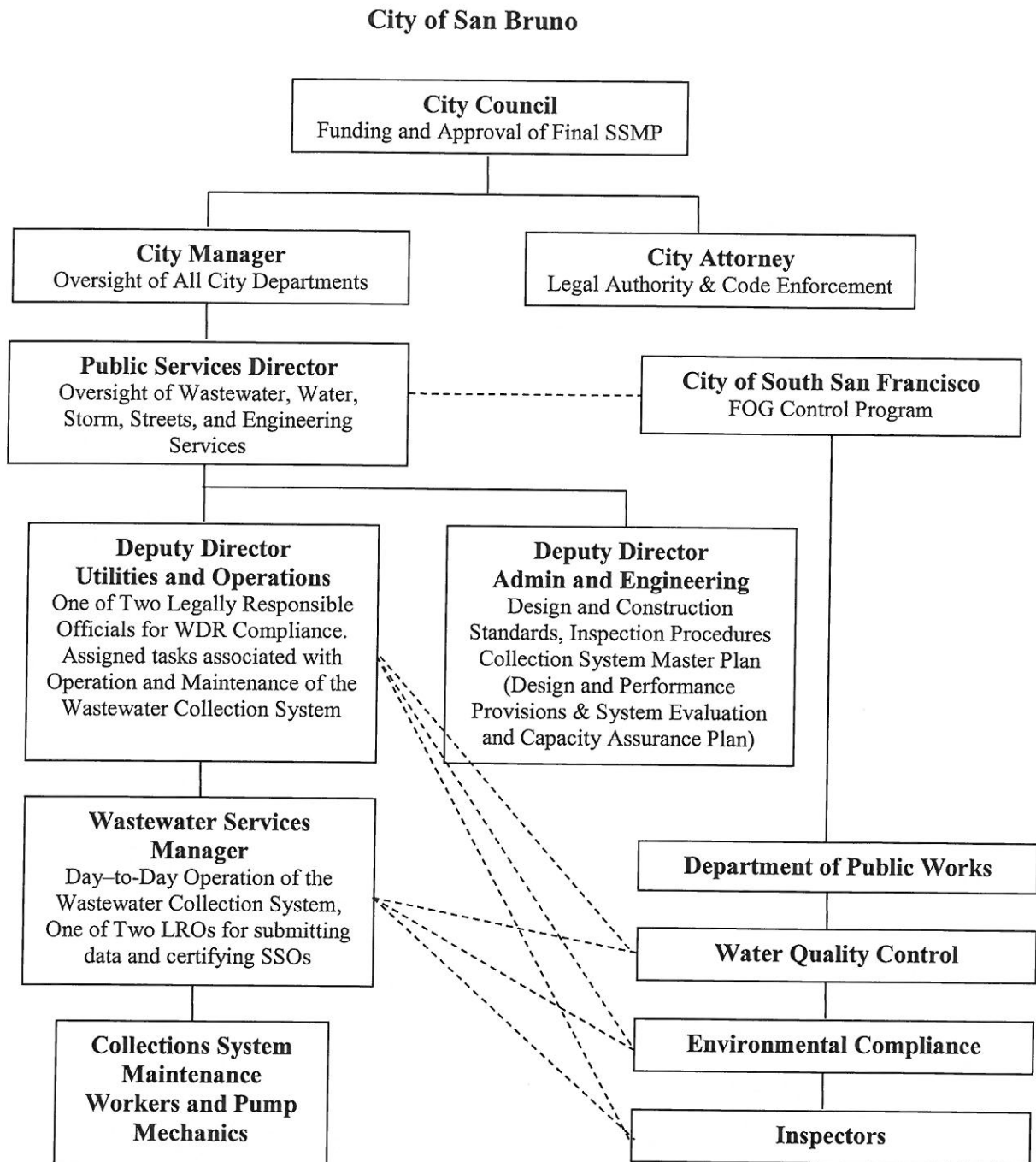
- **City Manager:** The City of San Bruno operates under the Council/Manager form of government. In accordance with the provisions of the Municipal Code, the City Manager is responsible for preparing, and upon City Council adoption, managing implementation of the City budget which outlines the City's annual work program and which balances the cost of providing City services within the available financial resources. The City Manager serves as the Chief Executive Officer of the municipal corporation and as Executive Director of the San Bruno Redevelopment Agency. As such, the City Manager is responsible for the appointment and supervision of all City department heads and for oversight of all full-time employees and all City operations to ensure that City services are delivered in an economical and effective manner.
- **City Attorney:** The City Council appoints the City Attorney to serve as "corporate" legal counsel to the City as an entity and advises the City Council and City staff on a broad range of municipal issues. These matters typically include open meeting laws, public record laws, conflicts of interests, land use and environmental laws, claims and litigation, municipal elections, employment and labor relations, municipal utilities, public works contracts, code enforcement, and resolutions, ordinances and other legal documents. The City Attorney receives policy direction from the City Council and acts as legal advisor and counsel to the City Council, City Boards and Commissions, City Manager, and City departments and represents the City in litigation against the City.
- **Public Services Director:** The Public Services Department (PSD) Director is responsible and has been assigned authority to plan, organize, direct, and review the activities and operations of the Public Services Department. This includes Wastewater, Water, Storm, Streets, and Engineering.
- **Deputy Public Services Director, Administration and Engineering (City Engineer):** The City Engineer is responsible for all municipal engineering. This includes the development and implementation of design and construction standards as well as inspection procedures (Design and Performance Provisions within the SWRCB WDR)
- **Deputy Public Services Director, Utilities & Operations:** Under general direction, plans, organizes, coordinates and directs the activities of the various functional working units in the Utilities and Operations Divisions of the Public Services Department; supervises technical staff and subordinate personnel in the planning and implementation of division functions including water operations, wastewater operations, storm drainage systems, fleet and equipment maintenance, streets, sidewalks, signs, traffic signals and street lighting; and performs related work as required. The Deputy Public Services Director - is one of the two Legally Responsible Officials (LROs) for reporting and certifying SSOs. The Deputy Director for Utilities & Operations also has the overall task but not overall authority for the operation and maintenance of the wastewater collection system. The Deputy Director for Utilities & Operations is assigned and takes on the work associated for; the preparation of the SSMP, for all audits, and for all monitoring and reporting under the SWRCB's WDR.

- **Wastewater Services Manager:** The Wastewater Services Manager manages, supervises and participates in a wide range of maintenance and repair related projects involving the City's wastewater collection system. The Wastewater Services Manager is also one of the two LROs responsible for monitoring, reporting and certification under the SWRCB's WDR.
- **Environmental Compliance Coordinator:** Under the Agreement for the operations and maintenance of the jointly owned South San Francisco / San Bruno WQCP, the Environmental Compliance Coordinator oversees the environmental laboratory activities and the industrial waste program and prepares regulatory compliance reports. As part of the industrial waste program, oversees the FOG inspection program for both cities.
- **Lead Maintenance Worker:** The Lead Maintenance Worker receives general supervision from the Services Manager, performs a variety of semi-skilled and/or skilled tasks in wastewater operations, maintenance, repair and/or construction work including providing lead worker assistance to supervisory and/or management staff as appropriate to the Department. The Lead Maintenance Worker is responsible for day to day operation of the collection system and the Overflow emergency response plan under the SWRCB's WDR.

Pump Mechanic: Under general supervision of the Wastewater Service Manager performs semi-skilled, skilled, and administrative work in the repair and maintenance of mechanical equipment at wastewater lift stations and stormwater pumping stations operated by the City. The stormwater stations are owned by a Flood Control District and the pump mechanics perform basic maintenance required and notify the Flood Control District for significant issues about the two stormwater pumping stations.

- **Public Services Maintenance Worker II:** The Public Services Maintenance Worker II receives general level supervision from higher level staff such as Maintenance Services Manager. Duties include performing a variety of semi-skilled and skilled tasks in maintenance work, and operating equipment in the construction, operation, repair, maintenance, and replacement of the City's wastewater collection and conveyance facilities and systems. The Public Services Maintenance Worker IIs are also responsible to respond to and mitigate SSOs.
- **Public Services Maintenance Worker I:** The Public Services Maintenance Worker I receives immediate supervision from higher level staff such as Maintenance Services Manager progressing to general supervision over time with training and demonstrated work performance. This is the entry level - journey level class in the Public Services Maintenance Worker series. Positions in this class usually perform most of the duties required of Maintenance Worker II's but are not expected to function at the same skill level and usually exercise less independent direction and judgment on matters related to work procedures and methods. The Public Services Maintenance Worker I's are also responsible to respond to and mitigate SSOs.

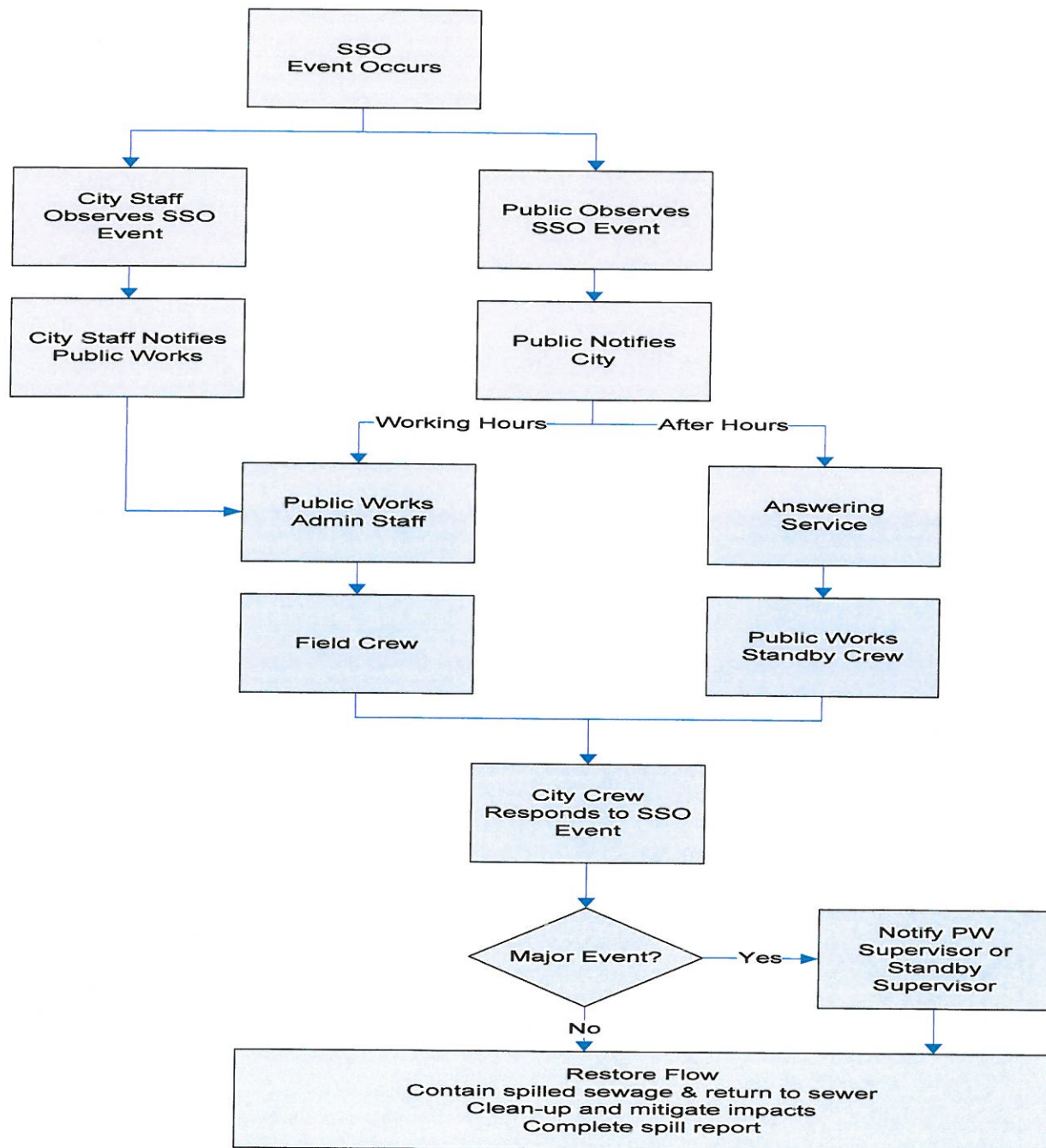
Figure 2-1
SSMP Responsibility Organization Chart



D. Chain of Communication for Reporting SSOs

The City's chain of communication for reporting SSOs is illustrated in Figure 2-2.

Figure 2-2
Chain of Communication for Reporting SSOs



E. Appendix 2 – Organization Documents

Appendix 2 includes the following:

- 2-1 City of San Bruno's Legally Responsible Officials and Management, Administrative, and Maintenance Positions Responsible for Implementing Specific Measures in the SSMP Program

SECTION 3 - LEGAL AUTHORITY

A. SWRCB Requirements

Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

1. Prevent illicit discharges into its sanitary sewer system, (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc).
2. Require that sewers and connections be properly designed and constructed;
3. Ensure access for maintenance, inspection or repairs for portions of the lateral owned or maintained by the Public Agency;
4. Limit the discharge of FOG and other debris that may cause blockages, and
5. Enforce any violation of its sewer ordinances.

B. RWQCB Requirements

Each wastewater collection system agency shall, at a minimum, describe its legal authority, through sewer use ordinances, services agreements, or other legally binding procedures to:

1. Control infiltration/inflow (I/I) from satellite wastewater collection systems and laterals
2. Require proper design and construction of new and rehabilitated sewers and connections
3. Require proper installation, testing, and inspection of new and rehabilitated sewers

C. City of San Bruno Legal Authority

1. Prevent illicit discharges

The City of San Bruno's Municipal code Chapter 10.12 Wastewater Quality Control provides the authority and specific requirement to prevent illicit discharges and the necessary enforcement authority.

Chapter 10.12.010 "Purpose and intent" sets forth uniform requirements for direct and indirect contributors into the wastewater collection and treatment system for the city of San Bruno and enables the city to comply with all applicable state of California laws (Water Code Section 1300 et seq.) and federal laws required by the Clean Water Act of 1977 (33 U.S.C. Section 1251 et seq.) and the general pretreatment regulations (40 CFR, part 403).

Chapter 10.12.200 “General discharge regulations” defines the requirements regarding what can and cannot be discharged into the City’s wastewater Collection System.

Chapter 10.12.400 “Authority of superintendent” stipulates that the superintendent has the authority to enforce compliance with the provisions of this chapter, and related state and federal regulations. (Ord. 1562 § 3 (part), 1995)

2. Require Proper Design and Construction of Sewers and Connections

Chapter 10.12.100 “Sewer connection permits” defines that all new sewers and connections to new and existing sewers shall be designed and constructed in accordance with the requirements of applicable city ordinances, the city standard plans and specifications and the Uniform Building Code then in effect. The applicant for a permit to construct sewers or connections shall furnish the chief building inspector with a copy of the wastewater discharge permit, where such permit is required by this chapter.

Chapter 10.12.180 “Inspection, testing and sampling”, paragraph (a) requires that sewers be properly designed and constructed with respect to proper installation, testing and inspection of new and rehabilitated sewers.

3. Sewer Access Authority

Chapter 10.08.100 “Access to service connections” stipulates that access to the water meter or wastewater connection shall not be obstructed at any time by, among other things, landscaping, fences or other structures, motor vehicles, debris, or companion animals. The city is not liable for damages caused to the premises as a result of efforts to gain access to the service connection. If a service connection cannot be accessed, a fine as established by resolution of the city council shall be assessed to the customer of record. (Ord. 1691 § 1 (part), 2004)

4. Fats, Oils and Grease (FOG) Control

The City of South San Francisco-San Bruno has established an enforcement response plan to address Food Services Establishments. The plan establishes procedures by which staff of the City of South San Francisco-San Bruno Water Quality Control Plant (“WQCP”) shall follow when investigating and responding to instances of Food Service Establishment (FSE) discharge permit noncompliance. It is intended to ensure that enforcement responsibilities shall be implemented in a consistent, fair, and timely manner.

The City of South San Francisco-San Bruno Water Quality Control Plant (WQCP) is subject to discharge requirements as set forth in Order No.R2-2008-0094, NPDES No. CA0038130. This permit requires monitoring and/or inspections of businesses that discharge to the WQCP. It is under the authority of this permit that the City of South San Francisco Environmental Compliance Inspectors inspect various facilities in San Bruno that discharge wastewater to the WQCP.

5. Enforcement Authority

Chapter 10.12.400 “Authority of superintendent”, paragraph (a) defines that the superintendent has the authority to enforce compliance with the provisions of this chapter, and related state and federal regulations. (Ord. 1562 § 3 (part), 1995)

Chapter 10.12.500 “Penalties” states that any user who is found to have willfully or negligently failed to comply with any provision of this chapter, and the orders, rules, regulations and permits issued hereunder, may be charged with a misdemeanor for each offense and, upon conviction, shall be punished in accord with Chapter 1.24 of this code, unless otherwise specified. Each day in which a violation shall occur or continue shall be deemed a separate and distinct offense. (Ord. 1562 § 3 (part), 1995)

10.12.540 “Cost recovery by city” stipulates that “In addition to the penalties provided herein, the city may recover reasonable attorney’s fees, court costs, court reporters’ fees and other expenses of litigation against the person found to have violated this chapter or the orders, rules, regulations, and permits issued hereunder. (Ord. 1562 § 3 (part), 1995)”

6. Control infiltration/inflow (I/I) from Satellite Systems & Laterals

Chapter 10.12.200 “General discharge regulations”, paragraphs (d) and (e) state prohibitions to control infiltration and inflow into the sewer system, including I/I from private property sewer laterals.

- (d) No person shall discharge or cause to be discharged any storm water, surface water, ground water, roof runoff, or subsurface drainage into any side sewer or sanitary sewer except by special permit therefore.
- (e) No person shall discharge or cause to be discharged into the public storm sewers, natural outlets, or natural watercourses of the city, or into the San Francisco Bay, any wastewater, yard drainage, roof runoff, or stormwater drainage from other areas where process material may be spilled, stored, or accidentally discharged with bacterial, physical, or toxic characteristics exceeding the levels of quality prescribed by the California State Regional Water Quality Control Board, San Francisco Region for wastewater discharges into the tidal waters of San Francisco Bay and Estuary.

The City does not have any satellite wastewater collection systems so this component does not apply.

SECTION 4 - OPERATION AND MAINTENANCE PROGRAM

A. SWRCB Requirements

The Sewer System Management Plan (SSMP) must include those elements listed below that are appropriate and applicable to the Enrollee's system:

1. Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;
2. Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
3. Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and television inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
4. Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
5. Provide equipment and replacement part inventories, including identification of critical replacement parts.

B. RWQCB Requirements

1. Collection System Map - Each wastewater collection system agency shall maintain up-to-date maps of its wastewater collection system facilities.

2. Resources and Budget - Each wastewater collection system agency shall allocate adequate resources for the operation, maintenance, and repair of its collection system.
3. Prioritized Preventive Maintenance - Each wastewater collection system agency shall prioritize its preventive maintenance activities.
4. Scheduled Inspections and Condition Assessment - Each wastewater collection system agency shall identify and prioritize structural deficiencies and implement a program of prioritized short-term and long-term actions to address them.
5. Contingency Equipment and Replacement Inventories - Each wastewater collection system agency shall provide contingency equipment to handle emergencies, and spare/replacement parts intended to minimize equipment/ facility downtime.
6. Training - Each wastewater collection system agency shall provide training on a regular basis for its staff in collection system operations, maintenance, and monitoring.
7. Outreach to Plumbers and Building Contractors - Implement an outreach program to educate commercial entities involved in sewer construction or maintenance about the proper practices for preventing blockages in private laterals. This requirement can be met by participating in a region-wide outreach program.

C. City of San Bruno's Operation & Maintenance Program

The following section describes how the City of San Bruno meets the requirements of the GWDR.

1. Sewer System Map

The City is implementing a Computerized Maintenance Management System (CMMS) and maintains a GIS mapping system of its sanitary sewer system that includes:

- Gravity lines and maintenance holes
- Pumping facilities
- Pressure pipes and valves
- Engineering is currently updating the storm water master plan to include conveyance facilities

2. Preventive Maintenance Program

The City provides preventative maintenance on sewer pipe mains, laterals and pump stations. Activities include:

- Main line flushing
- Mechanical rodding

- Video inspection
- Manhole cleaning
- Pump maintenance

The City completes scheduled and emergency repairs of sewer mains, service laterals, and manholes. Pipe repair tasks include:

- Pipe failure
- Structural decomposition,
- Offsets
- Root intrusion
- Cracks and pipe sagging
- Manhole repairs include:
- Rim and lid replacement
- Minor cone failure and
- Basin failures.
- Conduct field investigations that are used to target needed Capital Improvement Projects.

3. Pipeline Maintenance

The City uses a preventive maintenance (PM) approach to operating and maintaining the wastewater collection system. The pipeline PM program consists of cleaning the entire wastewater collection system followed by a condition-based proactive cleaning of all gravity sewers with a cleaning cycle not to exceed 10 years for any specific gravity sewer. For the normal sewer cleaning operations, a two person crew is assigned unless the pipelines to be cleaned are located in heavy traffic zones, in which case a three person crew is used.

Most of the sewer cleaning or flushing is performed using the high velocity jet cleaner truck. Sewer cleaning is accomplished using a truck mounted machine that pressurizes water contained on the truck. The water is conveyed into the sewer pipeline through a hose where the water is released at high pressure through one of several nozzles that can be attached to the end of the hose. The nozzles direct the high pressure water into the sewer in a conical pattern behind the nozzle, creating a high pressure cone of water that is reeled back through the pipeline using a winch on the truck. This sprays the interior of the pipeline with the high pressure water and sprays off collected sediment and scum from the pipeline walls. This operation is called “jetting”, flushing”, or “hydro-flushing”. Depending upon the pressure used, the high pressure spray can also cut off some small roots that may have intruded into the pipeline.

Hydro-flushing is performed starting at the upstream manhole and pulling the hose and nozzle downstream so that the water and debris can wash out of the pipeline being cleaned. Where a lot of debris is anticipated based on previous sewer cleaning work, a combination high velocity cleaner / vacuum truck is used. For these locations, the

vacuum tubing included with combination truck is placed in the downstream manhole to remove debris and roots as they are being removed.

A small portion of the sewer system is cleaned using a mechanical auger to cut roots that may have intruded into the pipelines. The mechanical auger is also a truck mounted unit.

More frequent cleaning is performed in pipeline segments based on blockage history and line investigation. These trouble spots are prioritized for cleaning based on their blockage history. An analysis is then performed on the blockages to determine how the cleaning frequencies need to be adjusted to prevent repeat blockages in the future. Additionally, 2,000 maintenance holes are cleaned and inspected annually.

The City contracts out 3,000 to 6,000 linear feet of chemical root foaming on a fiscal year basis as needed. Currently, specific line segments are treated every year and others are treated every other year.

The City has implemented an aggressive enforcement plan for Food Service Establishments (FSEs) to minimize FOG stoppages and SSOs.

Pipe line maintenance entails:

- Mechanical rodding
- Hydro-flushing
- Chemical root control
- Grease control
- Visual inspection and cleaning of maintenance holes

Appendix 4-4 presents the City's Standard Operating Procedure (SOP) for Sewer Main Excavation. Appendix 4-5 presents the City's Standard Operating Procedure (SOP) for Vactor Procedures.

4. Pumping (Lift) Station Maintenance

The City operates and maintains six (6) wastewater pumping stations, also called lift stations. Some pumping stations are called lift stations since the pumps "lift" and discharge the water into a nearby gravity pipeline at a higher elevation only a short distance away from the pumping station.

Summary information on the lift stations is shown in Table 4-3 below. All of the lift stations are equipped with constant speed pumps. These lift stations are configured with wet pit / dry pit, and submersible type pumping applications. Wet pit / dry pit type pumping stations have a separate wet well from the "dry pit" where the pumps, motors, and electrical controls are located. Connecting pipes allow the pumps to pump the wastewater from the wet pit through gate valves into the pumps and then discharge the wastewater to the discharge piping through a set of check and gate valves. The check

valve protects the pump from back pressure on the discharge line when the pump is not running. Two gate valves are installed on either side of the pumps piping to allow the pump to be removed from service for maintenance or replacement.

The same system is in place for submersible pumps. However, the pumps, check valves, and gate valves are either in the wet well or placed just above the well. All electrical controls are separate from the wet well.

**Table 4-3
Pumping (Lift) Station Data**

	Pump Station Name	Pump Manufacturer	No. Pumps	Capacity, Each (gpm)	Wet Well Holding Time at ADWF (hours)	Inspection Frequency	SCADA or Telemetry	Backup Power	Flow Meter
1	Lomita Park	Flyght	2	250	1.5	Daily	Yes	Yes	No
2	Crestmoor Dr	Gorman-Rupp	2	250	1.5	Daily	Yes	Yes	No
3	Crestwood Dr	Flyght	4	225 & 840	2	Daily	Yes	Yes	No
4	Olympic Dr	Paco	2	200	1	Daily	No	Yes	No
5	Sharp Park Dr	Flyght	2	1,000	9	Daily	Yes	Yes	Yes
6	Spyglass Dr	Moyno	2	200	1.5	Daily	Yes	Yes	No

As shown in the above list, three of the pumping stations have been supplied with pumps by Flyght. This standardization helps by allowing some parts to be interchanged between pumping stations. It also allows for standardization of the operation and maintenance procedures.

The City's Preventive Maintenance (PM) program includes inspecting and maintaining the pumping stations daily. During these inspections the stations are checked for any signs of vandalism and problems. All operational systems such as pumps, generators, level controls, check valves, and SCADA systems are checked for proper operation. Other equipment is also checked depending on their schedule of proactive preventative maintenance. This includes pump oil changes, all fluids for generators, generator and transfer switch exercising, and overall facility maintenance.

During these checks, notations are made on the Lift Station Inspection Sheets that are kept for each of the lift stations. Copies of these sheets are included in Appendix 4-4: Lift Station Inspection Sheets. These notations are used to ensure that all of the required checks and duties have been performed, including assuring that the pumping station and the grounds have been cleaned. Any problems that are found are noted and action is taken to mitigate the issue.

5. Customer Service

The Wastewater Division places an emphasis on customer service through timely and regular maintenance of the sewer collection system and utilization of preventative

maintenance practices. The City is enhancing its on-going preventative maintenance program and implementing new approaches in reducing overflows, including enhanced maintenance of the sewer lines, performing a greater number of spot repairs, and conducting annual and spot video inspections of sewer mains.

The City will also sponsor several environmental programs to create customer awareness aimed at increasing water quality and administer a grant program to encourage homeowners in the Sharp Park neighborhood to replace their sewer laterals.

When a customer has a concern or observes a problem with the sewer system and calls the City, a Customer Service Request is filled and transmitted to the Wastewater Division. A copy of this request form is included in Appendix 4-6.

When a customer is not at home when a maintenance operations person responds to a Customer Service Request, a Sewer Maintenance Operations Door Hanger is left at the property advising that the City responded to the Customer Service Request. A copy of the door hanger is included in Appendix 4-7.

6. Scheduling and Management Information System

The City has implemented a computerized work order system that is linked to the geographic information system (GIS). The new computerized work order system will improve record keeping and management assessment through the development of a modern work order system.

7. Operating Budget

The Wastewater Division is funded entirely by Wastewater Enterprise Fund revenue derived from the utility rates charged to residents and businesses based on their service charges and winter water consumption. A five year rate structure was approved by the City Council and became effective September 1, 2012.

These rates are revised as necessary to reflect the increased cost of providing wastewater treatment and replacement of the system's aging infrastructure. In addition, adequate revenue must be maintained in order to cover bond covenants and conditions.

The City's Wastewater Division's core services budget and personnel resources summaries are included in Appendix 4-8.

8. Rehabilitation and Replacement Program

The city's current Wastewater Capital Improvement program projected for 2012 through 2017 provides for the maintenance and implementation of capital improvements related to the wastewater collection system throughout the City, including all sewer mains,

manholes, lower laterals, and seven lift stations (See appendix 4-8 for project and program funding summary). The Wastewater Fund Capital Improvement Program is designed to protect, preserve, and enhance the wastewater infrastructure facilities. The goal is to improve and/or replace existing facilities in an effort to extend the useful life of these valuable public assets.

9. O&M Training

The WW Division has SOPs for SSO response and mitigation, sewer cleaning (Vactor) equipment, mainline repair, class B license requirement (standby duty), cell phone/two way radio use, and locating and marking USA.

Employee safety:

- Hold weekly meetings that usually include safety tailgate meetings and maintain sign-in log.
- Holds biweekly meetings with a more formal tailgate meeting with a handout, test, and sign in sheet.
- Present safe practice reminder at all meetings.
- Maintain compliance of OSHA safety rules.
- Review Material Safety Data sheets (MSDS) for new chemicals used.

Employee certifications and training:

- Employees receive and renew job specific certifications for DMV, CPR, and First Aid, as required.
- Employees receive yearly training for the following environmental and safety programs and others on a timeline required by OSHA found in the chart below. In addition, the Corp Yard provides competent person training on trenching, shoring, excavation, and SSO response/bypass pumping training.
- 10 to 12 employees are trained or provided refresher training in Confined Space Safety, Traffic Control, and Trenching/Shoring/Excavation at the competent person training level every two to three years.

SEWER SYSTEM MANAGEMENT PLAN

Cal/OSHA SAFETY TRAINING

DEPARTMENT-SPECIFIC TRAINING

	Asbestos Awareness	Blood-borne Pathogens	CalTrain ROW	HAZMAT - Reg. Compliance; Classification & Labeling of	Hazwoper Awareness	Hearing Conservation	Respirator Fit Testing	Trenching / Shoring / Soil Excavation Awareness	Confined Space Certification	Traffic Zone Safety (Cones Class / Flagger Training)	Harassment Prevention	Competent Trenching / Shoring / Soil Class	Lead in Construction	Acetylene Fuel & Gas Safety	Cement Pipe Exposure	Chemical Hygiene for Laboratories	CPR / First Aid	Cranes & Other Hoisting Equipment	Equipment & Machinery (Construction)	Fall Protection	Forklift / Lift Truck Operations	Heat Illness Prevention	Lockout / Tag out	Welding & Cutting Safety
Central Garage																								
Streets																								
Stormwater																								
Wastewater																								
Water																								
Annually																								
Bi-Annually																								
Tri-Annual / Refresher Training																								
Vector Mechanic Training (Garage)																								
Streets Operations Certificate (Streets)																								
Sub-surface utility locating & marking best practices																								
CA Water Environ. Assoc. Conf. & Training (Wastewater)																								
Bay Area Clean Water Agency (BACWA) Training (Wastewater)																								
American Mgt Assoc. & Mgt Training (Wastewater)																								
Sewer cleaning efficiency enhancement (Wastewater)																								
CA Dept. of Public Health Cont'd Ed. & Certificates (Water)																								

SEWER SYSTEM MANAGEMENT PLAN

10. Equipment and Critical Replacement Parts

The City's fleet maintenance department maintains high velocity jet rodder vehicles, mechanical rodding equipment, pumps, generators and a video inspection vehicle. Critical pipeline and pump station parts and spare equipment inventory are maintained by the Collection System Section and updated monthly. Critical equipment and miscellaneous spare parts inventory are included in the listing presented in Appendix 4-2.

11. Outreach to Plumbers and Building Contractors

The Building Division offers a comprehensive list of brochures that can be downloaded and printed out from the City's website (http://www.sanbruno.ca.gov/comdev_bldgBrochures.html). These brochures are also available at the Community Development Department in San Bruno City Hall @ 567 El Camino Real, San Bruno, CA 94066. The following are examples and copies are included in appendix 4-9.

- Re-Pipe
- Sewer Repairs & Cleanout Installation
- Shower & Tub Installation
- Water Heaters

The Engineering Division serves as the homeowners and contractors primary contact for construction activities within public right-of-ways such as sidewalk, streets and other city-owned property.

D. Appendix 4 – Operation and Maintenance Program Documents

Appendix 4 includes the following:

- 4-1 Collection System Overview Map
- 4-2 Sewer Maintenance Equipment List
- 4-3 Sewer Main Excavation
- 4-4 Vactor Procedures
- 4-5 Lift Station Inspection Sheets
- 4-6 Customer Service Request
- 4-7 Sewer Maintenance Operations Door Hanger
- 4-8 2011-16 Wastewater Capital Improvement Program

- 4-9 Wastewater Capital 2011-2016 Work Program
- 4-10 Plumber and Contractor Brochures

SECTION 5 - DESIGN AND PERFORMANCE PROVISIONS

A. SWRCB Requirements

The WDR SSMP Design and Performance Provision requirement specifies that each Enrollee have the following:

1. Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
2. Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

B. RWQCB Requirements

1. Standards for Installation, Rehabilitation and Repair - Each wastewater collection system agency shall identify minimum design and construction standards and specifications for the installation of new sewer systems and for the rehabilitation and repair of existing sewer systems.
2. Standards for Inspection and Testing of New and Rehabilitated Facilities - Each wastewater collection system agency shall identify procedures and standards for inspecting and testing the installation of new sewers, pump stations, and other appurtenances; and for rehabilitation and repair projects.

C. Sanitary Sewer Design Standards and Specifications

Chapter 12.44.080 of the Municipal Code, included as Appendix 5-1, addresses design criteria for vitrified clay pipe, slopes of collector lines, laterals, minimum size for mains and other miscellaneous requirements.

Chapter 10.12.100 "Sewer connection permits", paragraph (d) of the Municipal Code requires that all new sewers and connections to new and existing sewers shall be designed and constructed in accordance with the requirements of applicable city ordinances, the city standard plans and specifications and the Uniform Building Code then in effect.

The Standard Specifications and Drawings of the Public Services Department of the City of San Bruno, August 2011, is the current version of the city standard plans and specifications. Part 1

includes Standard Requirements for all public projects undertaken within the City. Part 2 defines General Requirements. Part 3 details Technical Specifications and Part 4 includes Standard Drawings that individual components are to adhere to. Division 33 of the Technical Specifications covers the technical requirements for projects to construct utility projects. Section 33 30 00 covers the requirements for sanitary sewerage utilities. This section includes specifications for the design and construction for new sanitary sewer pipelines. Section 3.14 specifies requirements for the construction of new pumping facilities. This section also includes specifications for sliplining and pipe bursting which are used for the rehabilitation of existing sanitary sewer pipelines.

D. Procedures and Standards for Inspection and Testing of New and Rehabilitated Facilities

Section 33 30 00 states that “Any and all work to be performed on the Collection System shall be inspected and approved by City Staff.” Section 33 30 00 also include testing and acceptance requirements for individual elements of projects and testing requirements for newly constructed or rehabilitated pipelines including hydrostatic testing, mandrel testing, air testing and closed circuit television inspection of sewer lines.

E. Appendix 5 – Design and Performance Provision Documents

Appendix 5 includes the following:

- 5-1 Municipal Code Chapter 12.44 Improvement Standards
- 5-2 City of San Bruno Standard Plans and Specifications Table of Contents
- 5-3 Standard Plans and Specifications Section 33 30 00 Table of Contents

SECTION 6 - OVERFLOW EMERGENCY RESPONSE PLAN

A. SWRCB Requirements

The WDR SSMP requirements specify that each Enrollee shall develop and implement an Overflow Emergency Response Plan (OERP) that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

1. Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner.
2. A program to ensure an appropriate response to all overflows.
3. Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification.
4. Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained.
5. Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities.
6. A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

B. RWQCB Requirements

Each wastewater collection system agency shall develop an overflow emergency response plan with the following elements:

1. Notification – Provide SSO notification procedures.
2. Response – Develop and implement a plan to respond to SSOs.

3. Reporting – Develop procedures to report and notify SSOs per SSO Monitoring and Reporting Program.
4. Impact Mitigation – Develop steps to contain wastewater, to prevent overflows from reaching surface waters, and to minimize or correct any adverse impact from SSOs.

C. City of San Bruno's Overflow Emergency Response Plan

1. Notification Procedures

SSO notification procedures are contained in the City's WW Division's sanitary sewer overflow and backup plan. The procedures are in a three ring binder and distributed to all personnel responsible for responding to SSOs, mitigating SSOs and reporting SSOs. The organizational response plan and chain of communication chart are located in Section 2. The complete table of contents for San Bruno's SSO response plan is located in Appendix 6-1. Figure 6-1 illustrates WWC Division's SSO notification procedures.

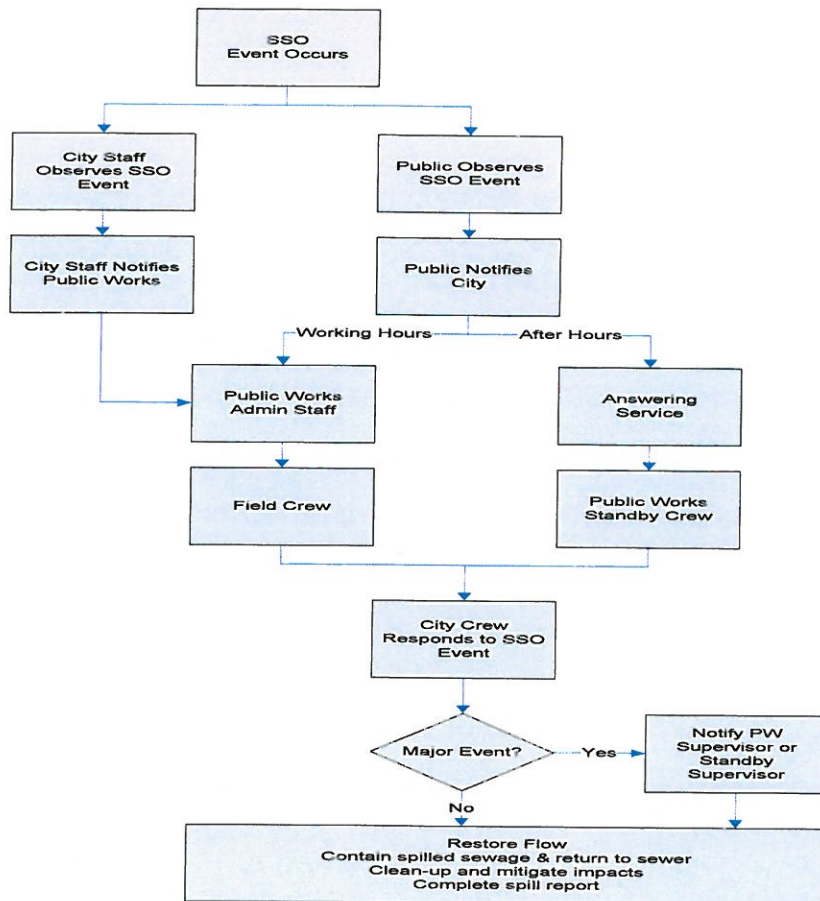
Figure 6-1

IF SSO	AND	THEN NOTIFY...
Is greater than or equal to (>) 1,000 gallons, discharges into drainage channel or surface water and/or discharges to a storm drain and was not fully recovered or is otherwise reportable		<ul style="list-style-type: none"> • Wastewater Division Manager • Services/Public Works • Deputy Director of Public Works • SSO/Pump Mechanic Category 1 (after hours only) <p>The individual(s) notified above is responsible for notifying the following:</p> <ul style="list-style-type: none"> • California Emergency Management Agency • Regional Water Quality Control Board • San Mateo County Health Department • State Water Resources Control Board • California Emergency Management Agency (Cal EMA) <p>Refer to Sanitary sewer Overflow and Backup Response Plan (SSOBRP) sect RN-1 side B for specific contacts and phone numbers</p>
Requires posting of public warning signs		<p>Notify:</p> <ul style="list-style-type: none"> • San Mateo County Health
SSOs impacting private property that may be due to a failure in the City sewer or any SSO where the		<p>Notify:</p> <p>Claims Examiner,</p> <ul style="list-style-type: none"> • ABAG Plan Corporation If you do not receive a call back from claims examiner within 30 minutes, call: <p>Claims Manager</p>

City believes a claim for damages may be submitted against the City.	<ul style="list-style-type: none"> ABAG Plan Corporation
--	---

2. Response Program

The WW Division has developed procedures for responding to SSOs. The purpose of these procedures is to ensure that all SSO responses are handled efficiently and effectively and that all regulatory requirements are met. Collection Systems Division staff is required to know and follow these procedures. These procedures are summarized in Figure 6-2 SSO Procedures Flow Chart below. Agency and personnel contact numbers are located in the SSOBRP and Appendix 6-3.



3. SSO Reporting Procedures

City employees are required to report all wastewater overflows found and to take appropriate action to secure the wastewater overflow area including the following:

- Properly report the status of the SSO to the appropriate regulatory agencies
- Relieve the cause of the overflow and
- Ensure that the affected area is cleaned as soon as possible to minimize health hazards to the public and protect the environment.

The Wastewater Division Field Supervisor is the Legally Responsible Official (LRO) authorized to electronically sign SWRCB online SSO reports.

4. Staff and Contractor OERP Awareness and Training

City employees who have a role in responding to, and/mitigating a SSO receive training on the contents of the City's OERP. New employees receive training before they are assigned responsibility to respond to SSOs. The WW Division conducts annual refresher training and drills that relate to mainline blockages, mainline failure, force main failure, pump station failure and lateral blockages.

Contractors working on City sewer facilities are required to develop project-specific OERP. All contractor employees are required to receive OERP training and follow the contractor project specific SSO response, mitigating and reporting procedures.

5. Spill Containment and Mitigation Procedure

Containment and mitigation procedures are located in SSO backup packet.

D. Appendix 6 - Overflow Emergency Response Plan Documents

Appendix 6 includes the following:

- 6-1 Sanitary Sewer Overflow and Backup Response Plan
- 6-2 SSOBRP Guide to Reporting to Regulatory Authorities

SECTION 7 - FOG CONTROL PROGRAM

A. SWRCB Requirements

The WDR SSMP Fog Control Program requirement specifies that each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

1. An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
2. A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
3. The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
4. Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, Best Management Practice (BMP) requirements, record keeping and reporting requirements;
5. Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
6. An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
7. Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

B. SWRCB Requirements

Each wastewater collection system agency shall evaluate its service area to determine whether a FOG control program is needed. If so, a FOG control program shall be developed as part of the SSMP. If an agency determines that a FOG program is not needed, the agency must provide justification for why it is not needed.

C. Compliance Summary

The City of San Bruno has its sanitary sewage treated under a Joint Powers Agreement by the City of South San Francisco. The City of South San Francisco wastewater treatment plant for purposes of this document will be titled, SSF/SB WWTP. The program by SSF/SB WWTP that impacts the City of San Bruno is directly related to the City's FOG program follows.

1. Public Education Outreach Program Implementation Plan

San Bruno will provide outreach materials to businesses and residences such as:

- Outreach items:
- Door hangers
- Bill stuffers
- Posters
- Grease scrapers
- Fact sheets
- Stickers

Types of Outreach that may be utilized at the Environmental Compliance Staff's discretion:

- City Website
- Water Bill Stuffers
- Articles/Ads in Newspapers
- Articles in Community Newsletters
- School Outreach
- Chamber of Commerce Outreach
- Ads in movie theaters
- Outreach at City Sponsored Events
- Ads on Public Television

The City is increasing enforcement as needed with existing food facilities. Many small restaurants have small, antiquated grease traps that are not meeting their needs. The FOG Program and Inspectors must have the authority to require improvements where needed and to escalate enforcement as needed. The various levels of enforcement are specified in the Enforcement Response Plan for Food Service Establishments.

Staff will work with the planning and building departments of the City of San Bruno to require adequate grease removal devices in all food facility tenant improvements and all new food facilities.

San Bruno staff will work with South San Francisco Staff to help Environmental Compliance Inspectors receive all Food Service Establishment permit applications in a timely manner.

2. FOG Disposal Plan

The Permittee shall be required to keep all manifests, receipts and invoices of all cleaning, maintenance, grease removal of/from the grease control device, disposal carrier and disposal site location for no less than three years.

3. Legal Authority to Prohibit FOG Discharges

The City of South San Francisco-San Bruno Water Quality Control Plant (WQCP) is subject to discharge requirements as set forth in Order No. R2-2008-0094, NPDES No. CA0038130. This permit requires monitoring and/or inspections of businesses that discharge to the WQCP. It is under the authority of this permit that the City of South San Francisco Environmental Compliance Inspectors perform inspections on various facilities in San Bruno that discharge wastewater to the WQCP.

San Bruno Ordinance:

The following Chapters of the San Bruno Ordinance demonstrate the City's Legal Authority to Prohibit FOG Discharges:

10.04.180 Grease.

"Grease" means greases, oils, fats, fatty acids, waxes, soaps, or other matter which is so determined in accordance with the Standard Methods examination for grease in polluted waters. (Ord. 1562 § 2(part), 1995)

10.12.200 General discharge regulations.

Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater treatment facilities such as, but not limited to: grease concentration exceeding one hundred mg/l, garbage with particles greater than one-half inch in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, cement, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining, or processing of fuel or lubricating oil, mud, or glass grinding or any suspended solids exceeding two hundred fifty mg/l.

South San Francisco Ordinance (Recommendation for San Bruno to Adopt):

14.08.030 Definitions.

“Grease” means greases, oils, fats, fatty acids, waxes, soaps or other matter which is so determined in accordance with the standard methods examination for grease in polluted waters.

14.08.210 General discharge regulations.

(1) It is unlawful for any person to dispose of any grease, or cause any grease to be disposed, by discharge into any drainage piping, by discharge into any public or private sanitary sewer, by discharge into any storm drainage system, or by discharge to any land, street, public way, river, stream or other waterway.

(2) The owner of every newly constructed, remodeled, or converted commercial or industrial facility with one or more grease generating activities, including food service facilities with new or replacement kitchens, for which a building permit application is submitted on or after January 1, 2010, shall install or cause to be installed a grease interceptor for each grease generating activity, of a size equal to or greater than the minimum size meeting the definition of “grease interceptor,” as defined in the currently adopted edition of the Uniform Plumbing Code. In no case shall any grease interceptor flow less than twenty gallons per minute (gpm). The installation of new garbage disposals in any commercial or industrial facility is prohibited.

15.12.060 California Plumbing Code appendices adopted.

Appendix D, “Sizing Stormwater Drainage Systems,” and Appendix H, “Recommended Procedures for Design, Construction and Installation of Commercial Kitchen Grease Interceptors” are adopted. (Ord. 1331 § 2 (part), 2004) polishing wastes, or any suspended solids exceeding two hundred fifty mg/l.

4. BMP, Grease Removal Devices, Recordkeeping, and Reporting Requirements

Grease emulsifiers or enzymes are prohibited for use in grease interceptors or traps.

The owner of every commercial or industrial generator of grease, including food service facilities, serviced by a sewer collection line found to have a grease blockage, a history of grease blockage, or accelerated line maintenance resulting from grease disposal, shall install or cause to be installed a grease removal device upon notification by the superintendent. If heavy solids accumulate causing a sewer blockage or accelerated line maintenance, the commercial or industrial generator shall remove any garbage disposal upon notification by the superintendent

The contents of all grease removal devices shall be removed periodically as necessary to prevent violations of this chapter. At a minimum, the contents shall be removed every six months. All grease removal devices shall be kept in good repair, and shall be maintained in continuous operation. A log of all grease removal activities shall be maintained at the facility showing the date of removal, the amount removed and the disposition of the removed contents. The log shall be retained for a period of three years, and shall be available for inspection by city inspectors upon request.

5. Inspection and Enforcement Authority – FOG Producers

All grease removal devices shall be kept in good repair, and shall be maintained in continuous operation. A log of all grease removal activities shall be maintained at the facility showing the date of removal, the amount removed and the disposition of the removed contents. The log shall be retained for a period of three years, and shall be available for inspection by city inspectors upon request.

There are four (4) levels of increasingly significant enforcement actions available to the City which are intended to correct non-compliance with a FSEs discharge permit. Progressive enforcement actions may require increasingly stringent responses to correct repeated or ongoing violations of waste water discharge permits or other local, state, or federal discharge prohibitions. The four actions include: (1) Verbal Notification (2) Advisory Letter, (3) Notice of Violation, and (4) Civil and Criminal Administrative Actions including Abatement Orders.

6. FOG Characterization Assessment and Hot Spot Cleaning Schedule

The City of San Bruno has a mature "hot spot" program that has weekly routine checking and maintenance of 41 hot or trouble spots per week. The City of San Bruno routinely hydro-flushes more than 200,000 lineal feet of sewer line per year. The trouble spot areas are based on blockage history and line investigation. These trouble spots are prioritized areas that are determined by their blockage history are investigated and, if required, preventatively cleaned 52 weeks per year. In addition, over 2,000 manholes are cleaned per year.

7. FOG Source Control Measures

FOG Waste Discharge Permit Conditions

The issuance of a FOG WDP may contain any of the following conditions or limits:

- Limits on discharge of FOG and other priority pollutants.
- Requirements for proper O&M of grease interceptors and other grease control devices.

- Grease interceptor maintenance frequency and schedule.
- Requirements for implementation of BMPs.
- Requirements for maintaining and reporting status of BMPs.
- Requirements for maintaining logs and records, including waste-hauling records and waste manifests.
- Requirements to self-monitor.
- Requirements for the FSE to construct, operate and maintain, at its own expense, FOG control device, and sampling facilities.
- Additional requirements as otherwise determined to be reasonably appropriate to protect the City's system or as specified by other Regulatory Agencies.
- Other terms and conditions, which may be reasonably applicable to ensure compliance with this ordinance.

D. Appendix 7 – FOG Control Program Document

Appendix 7 includes the following:

- 7-1 City of San Bruno Fats, Oils, and Grease (FOG) Program
- 7-2 FOG Ordinance
- 7-3 City of South San Francisco and San Bruno Food Services Establishments Enforcement Response Plan

SECTION 8 - SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

A. SWRCB Requirements

The WDR SSMP System Evaluation and Capacity Assurance Plan requirements specifies that each Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

1. Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;
2. Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
3. Capacity Enhancement Measures: The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
4. Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the CIP developed in a thru c above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14 of the WDR.

B. SWRCB Requirements

1. Capacity Assessment - Each wastewater collection system agency shall establish a process to assess the current and future capacity requirements for the collection system facilities.

2. System Evaluation and Capacity Assurance Plan - Each wastewater collection system agency shall prepare and implement a capital improvement plan to provide hydraulic capacity of key sewer system elements under peak flow conditions.

C. Compliance Summary

1. Evaluation

The City has contracted with an engineering firm to prepare a new Collection System Master Plan. The new master plan will assess the capacity of the City's sanitary sewer system and will identify improvements that are needed to convey all of the wastewater generated within the City to the South San Francisco/San Bruno Water Quality Control Plant.

This project includes modeling of the City's wastewater collection systems to reflect changes and upgrades made via CIP projects and land development carried out over the last ten years. Once complete, the new master plan will provide additional focus for mainline and pump station rehabilitation work that has been incorporated into the recently completed wastewater rate study. This new plan is available in draft form and will be approved by the governing board in the Fall of 2013.

2. Design Criteria

The capacity-related design criteria, including base wastewater flow and peaking factors, are included in Section 4 - Design and Performance Provisions.

3. Capacity Enhancement Measures

The capacity-related projects and schedules are included as Appendix 8-1. The appendix will be updated following completion of the new master plan.

4. Capital Improvement Program Schedule

The current projects on the CIP list in Appendix 4-9 are:

- Dry Weather Flow Monitor at 7th Avenue
- Kains to Angus Sewer Bypass
- Sanitary Sewer Condition Assessment Project
- Sewer Main Improvement and Replacement Project
- Vactor Equipment Purchase
- Wastewater Pump Station Improvement and Replacement Project
- Water Quality Control Plant Upgrades

This list will be revised and updated after the master plan has been completed. The approved rate schedule will support the implementation of the proposed CIP.

D. Appendix 8 - System Evaluation and Capacity Assurance Plan Documents

Appendix 8 includes the following:

8-1 Master Plan Table of Contents

SECTION 9 - MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

A. SWRCB Requirements

The WDR SSMP Monitoring, Measurement, and Program Modification requirement specifies that each Enrollee shall do the following:

1. Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
2. Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
3. Assess the success of the preventative maintenance program;
4. Update program elements, as appropriate, based on monitoring or performance evaluations; and
5. Identify and illustrate SSO trends, including: frequency, location, and volume.

B. RWQCB Requirements

Each wastewater collection system agency shall monitor the effectiveness of each SSMP element and update and modify SSMP elements to keep them current, accurate, and available for audit as appropriate.

1. City Metrics to Prioritize SSMP Activities

The City has established three categories of metrics to monitor and measure the effectiveness of the various elements of this SSMP and its success in terms of meeting its goals. Those metrics include the following categories of metric information:

- System Information
- Sewer Maintenance
- Performance Measures

2. Monitor Effectiveness of SSMP

The WW Division's SSMP implementation schedule assigns individual staff responsibility for each SSMP element and defines the frequency that each element must

be monitored and updated to ensure that the goals of this SSMP are achieved. This schedule is included in Appendix I.

3. Metrics to Assess Sewer Maintenance

Total miles cleaned per year	Feet/Miles
Total miles CCTV inspected per year	Feet/Miles
Total miles chemical root treatment	Miles per year
Total miles of sewer	Update annually
Avg. high velocity cleaning per crew per day	Feet
Avg. mechanical rodding per crew per day	Feet
Number of planned work orders completed	Per year
Number of unplanned work orders completed	Per year

4. Metrics to Assess SSMP Performance

The WW Division uses sewer maintenance metrics to monitor and measure and adjust maintenance program activities. The goal of the WWC Division is to reduce the number and volume of SSOs identified in Table 1 of the Historical Summary of Sanitary Sewer Overflows in Appendix I-3.

Total number of spills per year (all spills)		Number of Spills		
Total volume of spills per year (all spills)		Total Gallons		
SSO Cause	Fats, Oil and Grease (FOG)	Number	%	Gallons
	Roots	Number	%	Gallons
	Debris	Number	%	Gallons
	Capacity (Wet weather)	Number	%	Gallons
	Vandalism	Number	%	Gallons
	Pipe Failure	Number	%	Gallons
	Lift Station Failure	Number	%	Gallons
	Other	Number	%	Gallons
	Total	Number	%	Gallons

A. Appendix 9 - Monitoring, Measurement, and Program Modifications Documents

Appendix 9 includes the following:

- 9-1 City of San Bruno's Fiscal Year System Information, Financial Information, Sewer Maintenance, and Performance Measures
- 9-2 Historical Summary of Sanitary Sewer System Overflows

SECTION 10 - SSMP PROGRAM AUDITS

A. SWRCB Requirements

The WDR SSMP Program Audits requirements specify that each Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

B. SWRCB Requirements

Each wastewater collection system agency shall conduct an annual audit of their SSMP which includes any deficiencies and steps to correct them (if applicable), appropriate to the size of the system and the number of overflows, and submit a report of such audit.

1. Audit Procedures, Roles and Responsibilities

The Duty Director for Utilities and Operations will perform periodic internal audits to determine the effectiveness of each element of the SSMP.

The Wastewater services Manager will generate the following information and system metrics on monthly and annual bases for the purpose of tracking, monitoring and adjusting the performance of the SSMP activities.

- System Information
- Sewer Maintenance
- Performance Measures

The primary focus in the evaluation of system metrics will be the elimination of preventable SSO and reduction of the impact of those SSOs that do occur.

The City's audit schedule for the RWQCB is annually and for the SWRCB is as follows:

- Annually for the first two years following the adoption and approval of this SSMP.
- Every two years thereafter the adoption and approval of this SSMP.
- Every five years from the date of adoption and approval and whenever significant program changes have occurred following the last City Council certification/approval.

2. SSMP Program Modification/Update Process

The Wastewater services Manager will monitor and review sewer performance metrics on an annual basis.

The Deputy Director will review the status of each element of the SSMP on an annual basis. Formal SSMP audits will be conducted every two years following the adoption of this SSMP.

The Public Services Director will initiate/direct corrective action to be taken when and if SSMP deficiencies are identified between/during periodic internal audits.

When significant changes are made to the SSMP that require re-certification, the Legally Responsible Official (LRO) or his or her designee will enter the data in the online SSO database and the LRO will certify the information in the online SSO database and mail the form to the State Water Board.

C. Appendix 10 - SSMP Program Audit Documents

Appendix 10 includes the following:

- 10-1 Audit Procedure
- 10-2 Audit Form

SECTION 11 - COMMUNICATION PROGRAM

A. SWRCB Requirements

The WDR SSMP Communication Program requirement specifies that each Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

This element requires that the City establish a program to communicate with the public and tributary/satellite systems on the development, implementation and performance of this SSMP. The program must provide a means for public input and feedback regarding the status of the City's SSMP. As part of the communication program the final SSMP must be approved by the City's Board of Directors at a public meeting.

B. RWQCB Requirements

The San Francisco Regional Water Quality Control Board does not address a communication program in its SSMP requirements.

1. SSMP Awareness Communication

The Public Services Department has created a power point presentation to introduce the SWRCB WDR/SSMP requirements and the City of San Bruno's responsibility to comply with the Statewide WDR order No. 2006-0003. The power point presentation is an overview of the WDR Sanitary Sewer Systems Requirements.

2. Stakeholder Communication – Residential, Commercial and Industrial

The Public Services Department communications plan is a living document. It describes the City's communication goal and objectives. It identifies a listing of the key messages and the communications strategies the City will use to deliver the key messages to the various stakeholders.

3. Tributary/Satellite Communication

There are no tributary or satellite systems. Thus, there is no need for a communication plan to communicate with the tributary or satellite systems.

C. Appendix 11 - Communication Program Documents

Appendix 11 includes the following:

11-2 Communication Plan

APPENDIX 1

Not used

SSMP Development Plan and Schedule

APPENDIX 2

Organization Documents

Appendix 2 includes the following:

2-1 Organizational Documents

- City of San Bruno's Legally Responsible Officials
- Personnel Responsible for SSMP Elements
- Contact List - Personnel Responsible for SSO Reporting

SEWER SYSTEM MANAGEMENT PLAN

Appendix 2-1

City of San Bruno's Legally Responsible Officials and Management, Administrative, and Maintenance Positions Responsible for Implementing Specific Measures in the SSMP Program

Legally Responsible Officials (LROs) and Personnel Responsible for SSO Reporting

The name and telephone number of the City of San Bruno's Legally Responsible Officials are listed below. These members of the City's staff are responsible for reporting SSOs to the SWQCB, RWQCB and other applicable agencies listed below. (All numbers use area code 650 unless otherwise noted)

<u>Position & Name</u>	<u>Telephone Number</u>
Deputy Director, Utilities & Operations (Unfilled)	(650) 616-7160
Wastewater Services Manager Dennis Bosch	(650) 616-7160

Reporting

The above individual(s) are responsible for reporting SSOs and notifying the following:

	<u>Telephone Number</u>
California Emergency Management Agency	
Obtain control number, complete field spill report form	1-800-852-7550
San Francisco Bay Regional Water Quality Control Board	1-510-622-2300
San Mateo County Environmental Health	1-650- 627-8244
State Water Resources Control Board	Online Reporting

Contact List – People, Agencies and Firms Responsible for Implementing Specific Measures of the SSMP

City Council

The current members of the City Council are listed below:

Mayor Jim Ruane

Vice Mayor Michael Salazar

Councilmember Irene O'Connell

SEWER SYSTEM MANAGEMENT PLAN

Councilmember Ken Ibarra
Councilmember Rico E. Medina

The Mayor and the Council do not maintain full time offices at City Hall, but can be reached through the City Manager's Office or their voice mail boxes. The Council meets the second and fourth Tuesday of every month. Meetings start at 7:00 PM and are televised live on Cable Channel 11 from the San Bruno Senior Center at 1555 Crystal Springs Road at (650) 616-7150.

City Manager

Connie Jackson is the City of San Bruno's City Manager. The current City Manager was appointed by the City Council in 2003. The City Manager's Office is located in City Hall at 567 El Camino Real. City Manager can be reached at (650) 616-7056.

City Attorney

Marc L. Zafferano was appointed City Attorney and began serving in San Bruno in February 2011. City Attorney can be reached at (650) 616-7057.

Public Service Director, Klara Fabry is the Public Service Director. Public Services Director can be reached at (650) 616-7065.

Deputy Director, City Engineer

Eunejune Kim is the City Engineer. Deputy Director/City Engineer can be reached at (650) 616-7075.

Deputy Director, Utilities & Operations

The Deputy Director, Utilities & Operations position is currently unfilled. The Utilities and Operations Division can be reached at (650) 616-7161.

Wastewater Services Manager

Dennis Bosch is the Wastewater Services Manager. Wastewater Services Manager can be reached at (650) 616-7160.

Environmental Compliance Coordinator

Cassie Prudell is the Environmental Compliance Coordinator for the City of South San Francisco. She can be reached at (650) 877-8555.

SSOs Weekly Standby

Various maintenance workers work on a standby basis on nights and weekend to respond to customer service requests for sewer problems. The standby crew can be reached at any time by calling (650) 616-7160.

APPENDIX 3

Not used

Legal Authority Documents

APPENDIX 4

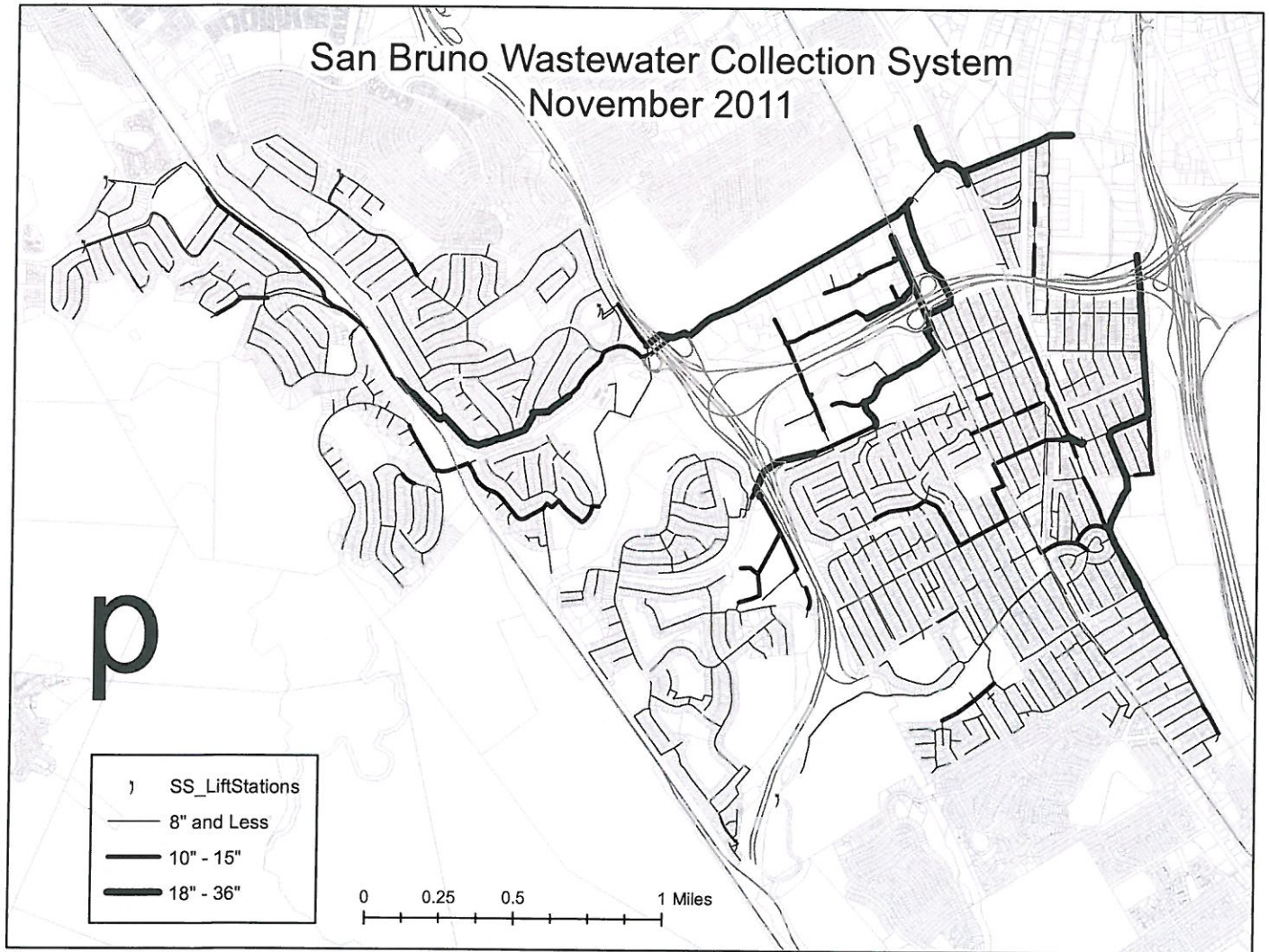
Operation and Maintenance Program Documents

Appendix 4 includes the following:

- 4-1 Collection System Overview Map
- 4-2 Sewer Maintenance Equipment List
- 4-3 Sewer Main Excavation
- 4-4 Vactor Procedures
- 4-5 Lift Station Inspection Sheets
- 4-6 Customer Service Request
- 4-7 Sewer Maintenance Operations Door Hanger
- 4-8 2011-16 Wastewater Capital Improvement Program
- 4-9 Wastewater Capital 2011-2016 Work Program
- 4-10 Plumber and Contractor Brochures

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-1 Collection System Overview Map



Map developed using the City's GIS data.

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-2 Sewer Maintenance Equipment List

Routine Use and Emergency Contingency Equipment:

The following equipment, hand tools used in normal operations and maintenance activities and are also used in emergency situations.

- Two Combination Vactor/Hydraulic Jetters
- One 1/2 inch portable electric eel
- Two industrial shop vacuums
- Mechanical rodder
- Three confined space air monitors
- Mechanical "top-kick" roter
- Assorted types and sizes of shoring
- Mechanical electric eel snake
- Underground pipe locator
- Four portable stand-by power generators
- Numerous sanitary sewer cleaning nozzles
- Three, 3-inch trash pumps
- Numerous storm drain cleaning nozzles
- Over 1,500 feet of discharge hose for trash pumps
- Numerous lengths of hand rod
- One sewer main/lateral camera with two sizes of video cable
- 1,900 feet of continuous rod for the mechanical rodder
- Two multi -purpose cut off saws
- Over 200 barricades
- Two chain saws
- 100 gallon portable diesel pump/container
- Two emergency gas containment lockers with gas
- Two self-propelled street saws
- Two hydraulic pipe cutters
- Five propane tanks
- 4,000 sand bags on hand
- Two Cummings Onan Generator Sets
- Two Kohler John Deere Generator sets

Field Equipment:

- Four square bar corkscrews (assorted sizes)
- Four concave root saws (assorted sizes)
- Assorted blades for cut off saws and self-propelled saws
- 1,900 feet of continuous rod

SEWER SYSTEM MANAGEMENT PLAN

- 500 feet of hand rod extensions
- 1,500 feet of discharge hose
- Snorkel tubes for Vactor
- Mechanical rodder guide hose
- Shovels, brooms, manhole openers
- Safety equipment (All PPE that is needed)
- Spark plugs for all associated tools and machinery
- One Emergency lights and lighting

Pump Stations:

- Assorted check valves (2 to 10 inch Dia.)
- Assorted gate valves (2 to 10 inch Dia.)
- Emergency repair couplings
- Motors for compressors
- Emergency electrical wire
- Two pump cranes and assorted rigging
- Proper confined space tripod and rigging
- Numerous gallons of motor oil
- Numerous gallons of anti-freeze
- Numerous gallons of distilled water
- Spare parts including, spark plugs and wires, oil filters, electrical controls, radiator hoses, thermostats, water pumps, impellers, wear rings, flusher valves, diaphragms, bolts, block heaters, pump supply wire, light bulbs, fuses, gauges, valve cover gaskets, clutches, motors, and numerous hand tools for maintenance.
- One brand specific replacement parts for Cummings and Kohler Generator sets.

The following examples of Wastewater, Streets and Stormwater Division's equipment and supplies are available for emergencies by the individual Divisions. This equipment will be used during a major City wide emergency. Additionally City Wastewater Division has full access to the total equipment of the Corporation Yard as needed protect the citizens of San Bruno and the environment.

- Portable generators
- Sand bags, chain saws,
- Barricades
- Propane tanks
- Self- propelled street saws and
- Lights.

SEWER SYSTEM MANAGEMENT PLAN

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-3 Sewer Main Excavation

Employees shall follow the following procedure when excavating a sewer main for maintenance or repair.

1. USA: Area must be USA marked with all utilities before dig is started.
2. Size: USA mark should extend from back of sidewalk to sewer main.
3. No parking posting: Area should be posted on both sides of the street for no parking.
4. Minimal prior notice: 24 hour notice for placement and notification of Police Dept.
5. Other agency conflicts: Contact any other utilities for special requirements such as a need for a standby person - High Voltage/High pressure Gas/ High profile Telecommunications
6. Working signs: Deploy proper traffic notification signs and warnings.
7. Call to Police Dept.: Call in all road closures to Police dept.
8. Wear PPE: Begin excavation in a safe manner with all P.P.E
9. Site preparation: Remove all grass, concrete, or asphalt.
10. Digging methods: Saw cut, jack-hammer, backhoe, Vactor, hand dig
11. Safe digging: Utilize all tools in safe digging manner.
12. Find target depth: Excavate to depth of pipe, Identify soil type, install shoring if necessary.
13. Other safety: Use ladders, air blowers, and air monitors during dig.
14. Entry: Enter excavation when safe and begin pipe repair.
15. Quality check: After pipe repair, test and check for leaks.
16. Tool recovery: Remove all deployed tools from excavation.
17. Backfill and tamping: Begin backfill process, and tamp.
18. Preparation for next job: Base rock at top for concrete or asphalt.
19. Traffic or pedestrian safety: Deploy traffic plates or plywood. Deploy barricades and caution tape if needed.
20. Road opening advisement: Call in all road openings to the Police Dept.
21. Pick up signs: Remove all traffic signs and barricades.
22. Update about job: Advise Supervisor/Lead worker of status of job.

End of procedure

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-4 Vactor Procedures

Contents and References	Page 1
Vactor 2100 Pre-checks	Page 1
Vactor 2100 Sewer Jetting	Page 2
Vactor 2100 Catch Basin Cleaning	Page 3
Vactor 2100 Decant and Emptying	Page 3
Vactor 2100 Water Filling	Page 4

These procedures are based on field demonstrations by a City crew on 09/09/09. Please refer also to the following documents:

- California Commercial Driver Handbook, Department of Motor Vehicles
- Vactor 2100 Operating Manual, kept in Maintenance Shop
- Vehicle Inspection Log, City of San Bruno, kept in vehicle
- Process of Hydro Jetting, City of San Bruno, posted in office
- Sewer Repair Excavation, Main Line, City of San Bruno, posted in office
- Sewer Repair Excavation, Lower Lateral, City of San Bruno, posted in office
- Sewage Backflow into Property, City of San Bruno, posted in office
- Dumping Vactor at SSF Plant, City of San Bruno, posted in office
- SSO Reporting Requirements, City of San Bruno, posted in office
- SSO Response and Procedure, City of San Bruno, posted in office
- Vehicle Accident Procedure, City of San Bruno, posted in office
- Personal Protective Equipment, City of San Bruno, posted in office

Vactor 2100 Pre-checks

Before driving and using the Vactor, perform all vehicle Pre-Trip Inspections listed in the California Commercial Driver Handbook and the City Inspection Log kept in the vehicle, especially the safety checks and the air brakes testing.

If anything is out of order, report to your supervisor and do not drive or use the Vactor.

Before driving, also check the following items which are specific to the Vactor:

- 1 **Hose Reel**: Check that reel is locked in place and hose is not hanging down.
- 2 **Control Levers**: Check that the lever to lift the Debris Body is down in the detent position and that the lever to lock the Debris Body Door Pins is in the up position.
- 3 **Tube Racks**: Check that the locking pins are in place and the levers are secured.
- 4 **Debris Body**: Check that the Debris Body Door is secured with the closure pins protruding out to their stop points and J-hook up in the locked position.

SEWER SYSTEM MANAGEMENT PLAN

- 5 Drain Valves: In the rear below the Debris Body Door open the two drain valves briefly to release water which may have leaked past the pump, then close them.
- 6 Spray Valve: Check that the valve to the spray nozzle in the Debris Body is closed.
- 7 Pump Valve: Check that the pump discharge valve is closed with black lever down.
- 8 Decant Hose: Check that decant lever is closed and hose is rolled and secured.
- 9 Fan Housing: Remove and then replace drain plug at end of pipe below water tank.
- 10 Water Tanks: Check water levels and fill as needed per the next procedure.
- 11 Vehicle Checklist: Fill out and sign the checklist form kept in the vehicle.

End of Procedure

Vactor 2100 Jetting

The Vactor hose reel and pump are used for jetting sewer lines to dislodge debris:

- 1 Vehicle Flashers: As you pull up to the manhole, turn on the flashers.
- 2 Traffic Controls: Set up traffic cones around the work area and Vactor.
- 3 Power Takeoff: Before using hydraulic features, engage PTO (Power Takeoff).
- 4 Remove Manhole Cover: Remove cover with pick or hook and move aside.
- 5 Extend Hose Reel: Extend hose reel, connect nozzle, and position over manhole.
- 6 Hose Guide: Check that hose moves freely through guide without binding.
- 7 Tiger Tail: Thread hose through flexible protector and tie off to tow hook on truck.
- 8 Insert Hose: Lower the hose into the manhole and insert the nozzle into the pipe.
- 9 Reset Counter: Reset the hose footage counter to zero before starting jetting.
- 10 Open Valve: Open water valve to hose reel. Check that other valves are closed.
- 11 Start Pump: Start Water Pump and observe that hose tightens with pressure.
- 12 Throttle Up: Increase throttle. Shallow lines 800 PSI. Deeper lines up to 1,200 PSI.
- 13 Insert Shovel: Block downstream outlet with long handled shovel to catch debris.
- 14 Clearing Blockage: Start jetting from downstream dry manhole if possible.
- 15 Hose Reel Speed: Adjust hose reel speed as needed. Read counter at end of run.
- 16 Retract Hose: Reverse reel direction and stop when black leader hose is visible.
- 17 Turn Pump Off: Throttle down first and then turn the Water Pump off.
- 18 Secure Hose Reel: Reel up and secure the hose. Retract and lock the hose reel.
- 19 Exit Work Area: Check all equipment. Stow cones. Turn off flashers and PTO. Exit.

End of Procedure

SEWER SYSTEM MANAGEMENT PLAN

Vector 2100 Catch Basin Cleaning

The Vector can be used to clean out catch basins, manholes, or excavations:

- 1 Position Vector: Park Vector so that suction tubes will be over area to be cleaned.
- 2 Traffic Controls: Turn on all flashers and place traffic cones around work area.
- 3 Communications: Use voice or hand signals to announce and confirm all actions.
- 4 Power Takeoff: Before using hydraulic features, engage PTO (Power Takeoff).
- 5 Extend Hose Reel: Extend the hose reel out for better access to the vacuum hose.
- 6 Position Hose: Release suction hose from mount. Extend boom over work area.
- 7 Connect Tubes: Red clamps are for tubes. Green clamp is for securing to truck.
- 8 Remove Covers: Remove gratings or covers with pick or hook and move aside.
- 9 Open Hose Valve: Open water valve to washdown hose. Close all other valves.
- 10 Turn Pump On: Start water pump to supply water to washdown hose.
- 11 Start Pony Engine: Start pony engine and go to Full Throttle.
- 12 Vacuum Tube: Slowly lower vacuum tube into basin or pit. Do not submerge fully.
- 13 Wash Water: Use water hose to wash material in basin or pit over to suction tube.
- 14 Wash Tubes: When finished, raise tube and spray water into bottom to wash out.
- 15 Retract Boom: Retract the boom to prepare for disconnecting the vacuum tubes.
- 16 Stow Tubes: Disconnect tubes and stow securely. Clamp hose to front mount.
- 17 Retract Hose Reel: Retract the hose reel towards the vehicle and lock it in place.
- 18 Lower the Boom: Lower boom all the way so that it rests between the pins on top.
- 19 Stop Pony and PTO: Stop pony engine and disengage PTO. Check all is secure.

End of Procedure

Vector 2100 Decant and Emptying

If the Debris Body contains a large quantity of liquid, it can be decanted into a manhole. Any debris must be emptied at the South San Francisco Wastewater Plant as follows:

- 1 Gate Code: Shown on vehicle dashboard.
- 2 Vehicle Position: Carefully back up to the below grade dump bin using a spotter.
- 3 Decant Hose: Unroll the rear decant hose and place the end in the dump bin.
- 4 Decant Switch Open: Move the Decant switch to the Open position.
- 5 Rear Decant: Slowly open the Decant Valve a little at a time to prevent splashing.
- 6 Raise Body: Raise the Debris Body using the hydraulic lever to discharge liquid.
- 7 Open Door: Open the door using the hydraulic lever to discharge debris.
- 8 Check Valves: Check that all valves are closed except the Debris Body spray

SEWER SYSTEM MANAGEMENT PLAN

- 9 Start Pump: Start the Water Pump to supply water to the Debris Body spray.
- 10 Increase Pump: Turn Throttle switch On. Throttle Up to increase spray pressure.
- 11 Stop Spray: When clean, stop Water Pump, Throttle Off, Spray Valve closed.
- 12 Wash Out Hose: Pull forward. Remove decant hose and wash out with water hose.
- 13 Wash Door: Wash the door inside, door seal, decant strainer, and level float inside.
- 14 Close Decant: Close Decant Valve and move Decant Switch to Closed position.
- 15 Lower Body: Lower the Debris Body to the Detent position to lock the back door.
- 16 Secure Hoses: Roll and secure the front and rear hoses. Close Decant Valve.
- 17 Start Fan Flush: Open two flush valves, remove drain line plug, and turn pump on.
- 18 Bump Fan: Run pony engine for a few seconds to bump fan while flushing.
- 19 Stop Fan Flush: Turn pump off, close two flush valves, replace drain line plug.
- 20 Wash Down: Wash down area. Check that hoses, valves, equipment are secure.
- 21 Log Sheets: Fill out the log sheet at the plant and the log sheet in the vehicle.

End of Procedure

Vactor 2100 Water Filling

Choose a hydrant in an easily accessible area without excessive traffic.

- 1 Flush Hydrant: Before filling tanks, open hydrant valve and flush into street.
- 2 Fill Hose: Unroll fill hose, connect to hydrant, and slowly open hydrant valve.
- 3 Sediment Filter: Open valve at bottom of sediment filter for one minute.
- 4 Inlet Screen: Periodically remove and clean the inlet screen, as needed.
- 5 Tank Levels: Monitor tank levels during filling and stop when full.
- 6 Secure Hydrant: Roll and stow the fill hose and cap the hydrant.

End of Procedure

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-5 Lift Station Inspection Sheets

City of San Bruno Public Services-Wastewater Division

Sewer Lift Station Maintenance Program checklist

Station name: _____

Daily:

- ☐ Check compound (discard dumped debris, check for vandalism).
- ☐ Check wet well for debris that could cause pump failure or blockage
- ☐ Check ultrasonic and manual floats in wet well for debris
- ☐ Check pressure relief valves for proper operation and leaks
- ☐ Check generator for power outages or leaks
- ☐ Check dry well pump pit for any problems; check packing and sump pump
- ☐ Check operation of check valves; operation of ventilation fans
- ☐ Listen to pump cycles and check level control for consistency; check volt and amp meters
- ☐ Check SCADA controls for alarms and proper operation
- ☐ Note work needed for compound or building by staff or contractor
- ☐ Check and clean wet well grinders
- ☐ Drain compressors
- ☐ Check overflow holding tanks (wet weather)
- ☐ Check coolant lines, control valves, clean filters
- ☐ Check batteries and chargers
- ☐ Check engine block heaters

Weekly:

- ☐ Exercise lag pumps
- ☐ Change informational data graphs

Bi weekly:

- ☐ Exercise emergency power generator; check all fluids, check operations of transfer switch
- ☐ Perform blow downs for air operated systems

Monthly:

- ☐ Clean wet wells

Quarterly:

- ☐ Remove access covers and clean inside check valves and gate valves
- ☐ Clean starter contacts

SEWER SYSTEM MANAGEMENT PLAN

- ☐ Clean batteries/change every 5 years

Yearly:

- ☐ Generator maintenance/fluids, load test

As Needed:

- ☐ Refuel diesel tanks for generators during and after power outages
- ☐ Reset alarms, VFDs, grinders
- ☐ Debris removal from pumps
- ☐ Pump out overflow holding tanks after storms
- ☐ Pick up supplies and parts
- ☐ Lube pumps and motors
- ☐ Change fluids for pumps and motors
- ☐ Change back up air tanks
- ☐ Perform confined space entry
- ☐ Change engine block heaters
- ☐ Remove or replace; gate valves, check valves, pumps, motors, generators, air compressors, various equipment
- ☐ Clean air pressure relief valves
- ☐ Work with contractors for normal or emergency maintenance mitigation

Notes or comments:

Operator: _____

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-6 Customer Service Request

The screenshot shows the City of San Bruno website with a contact form for the Wastewater Division. The form includes fields for Name, Phone Number, Address (if applicable), Question, and E-mail address. There are also 'Submit' and 'Clear Form' buttons. The website header includes navigation links like Home, Government, Departments, Calendar, I Want To, Doing Business, Our Community, and Pages. A sidebar on the left lists various services and departments.

CITY of SAN BRUNO

Home Government Departments Calendar I Want To Doing Business Our Community Pages

Public Services
557 E Camino Real
San Bruno, CA 94066
Voice: (650) 516-7055
Fax: (650) 794-1443

Corporation Yard
225 Huntington Avenue
Phone: (650) 516-7150
Fax: (650) 573-0286

Public Services - Home
Divisions & Operations
Contractors & Homeowners
Streets & Stormwater
Wastewater
Sustainability Programs
Projects
FAQ's
Contact Us

To Contact San Bruno Public Services, Wastewater Division:

Your Name:

Your Phone Number:

If your question is involving a specific location, what is the address:

Your Question:

Your E-mail address: (Required)

Translate this page! © Copyright 1998-2013 - City of San Bruno. All rights reserved. Terms of Site Use Contact Webmaster

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-7 Sewer Maintenance Operations Door Hanger



To _____

Address _____

_____ Date _____

_____ a.m.
_____ p.m.

While you were out, our maintenance operations person called regarding the following:

By _____

(Maintenance Representative)

If you have any questions, please call the Public Works Department at (650) 616-7160.

**CITY OF SAN BRUNO
225 Huntington Ave.
San Bruno CA 94066**

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-8

2012-17

Wastewater Capital Improvement Program Guiding Policies

The Wastewater Enterprise Fund provides for the maintenance and implementation of capital improvements related to the safe and reliable collection and transport of sewage from San Bruno residents and businesses to the Water Quality Control Plant, jointly owned by San Bruno and South San Francisco and operated by South San Francisco. The San Bruno wastewater system consists of

85 miles of sewer mains, 2 miles of force mains and six pumping stations. All wastewater is conveyed to the City of South San Francisco's Shaw Road Pump Station, from where it is pumped to the joint San Bruno/South San Francisco Water Quality Control Plant for treatment. Implementation of the Wastewater Capital Improvement Program is designed to protect, preserve, and enhance wastewater facilities to eliminate sanitary sewer overflows that impact public and environmental health. The goal is to improve and/or replace existing facilities to ensure wastewater system integrity and the continued safe transport and treatment of sewage.

Capital investments in the wastewater system are driven by several City Council approved documents and policies, including:

- **Sewer System Master Plan.** A comprehensive planning document that evaluates the state of the City's wastewater infrastructure, including collection mains and pump stations, and recommends specific projects to invest, maintain and expand that infrastructure over a ten-year period. Recommended projects are then considered for incorporation into the Capital Improvement Program. The Master Plan is currently under revision.
- **Settlement Agreements.** In 2011, the City negotiated separate settlement agreements with the San Francisco Regional Water Quality Control Board and San Francisco Baykeeper regarding sanitary sewer overflows (SSOs). Both agreements will have significant impacts on day-to-day maintenance requirements and capital investment. The agreement with the Regional Board mandates that the City abide by a Cease and Desist Order that includes specific sewer system performance requirements and implementation of supplemental environmental programs. The other agreement settled litigation initiated by San Francisco Baykeeper that also addresses a range of programs to improve sewer system performance. Both agreements mandate significant reductions in sanitary sewer overflows by 2019 - limiting maximum SSO to eight under the Regional Board agreement and a maximum of three under the Baykeeper agreement. Meeting these benchmarks requires aggressive capital investment to rehabilitate aging pumping stations and collection mains, which will be incorporated into the Sewer System Master Plan. Ratepayers will be exposed to additional litigation and fines if the City fails to abide by the terms of the agreement.
- **Wastewater Rate Study.** A financial model that calculates the rates required to maintain the wastewater system according to the Master Plan and adopted Capital Improvement Program. Of note, the most recent rate study adopted in June 2009 included the rates necessary to rehabilitate the City's sewer main collection system within 25 years. The rate study was updated May 2012 and matches the level of capital investment included in the Sewer System Master Plan.
- **Transit Corridors Plan.** A document focused on the improvement of the downtown, and the areas immediately surrounding the Caltrain and BART stations. The Plan identifies improvements within the sewer collection system necessary to accommodate future development in the Transit Corridors area.

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-9 Wastewater Capital 2012-17 Work Program

2012-17 Wastewater Capital Investment Work Program Funding Summary

	Total Project Cost	Carryover Appropriation	2012-13	2013-14	2014-15	2015-16	2016-17
Wastewater Capital							
Dry Weather Flow Monitor at 7th Avenue	415,000	0	350,000	0	0	0	0
Kains to Angus Sewer Bypass Project	1,375,000	113,580	1,245,000	0	0	0	0
Sanitary Sewer Condition Assessment Project	1,435,000	440,000	0	0	0	0	0
Sewer Main Improvement and Replacement Project	18,121,006	91,411	753,880	1,932,500	3,279,000	4,504,000	7,164,000
Vactor Equipment Purchase	400,000	0	0	400,000	0	0	0
Video Inspection Truck Equipment Purchase	215,000	0	0	215,000	0	0	0
Wastewater Pump Station Improvement and Replacement Project	7,541,000	682,197	0	3,546,690	1,135,000	1,168,000	1,000,000
Water Quality Control Plant Upgrades	7,020,000	0	810,000	2,100,000	1,940,000	1,420,000	750,000
Total	36,522,006	1,327,187	3,158,880	8,194,190	6,354,000	7,092,000	8,914,000

SEWER SYSTEM MANAGEMENT PLAN

Appendix 4-10 Plumber and Contractor Brochures

Hard copies of the following plumber and contractor brochures are attached following this page. These brochures will not have page numbers attached. Several of these are available electronically through the City's web site. Web page links are also listed below.

Brochure

- Re-Pipe
http://www.sanbruno.ca.gov/comdev_images/buildingbrochures/RePipe.pdf
- Sewer Repairs & Cleanout Installation
http://www.sanbruno.ca.gov/comdev_images/buildingbrochures/SewerInstallation.pdf
- Shower & Tub Installation
http://www.sanbruno.ca.gov/comdev_images/buildingbrochures/ShowerTub_Installation.pdf
- Water Heaters
http://www.sanbruno.ca.gov/comdev_images/buildingbrochures/Waterheaters.pdf

APPENDIX 5

Design and Performance Provisions Documents

Appendix 5 includes the following:

- 5-1 Municipal Code Chapter 12.44 Improvement Standards
- 5-2 City of San Bruno Standard Plans and Specifications Table of Contents
- 5-3 Standard Plans and Specifications Section 33 30 00 Table of Contents

SEWER SYSTEM MANAGEMENT PLAN

Appendix 5-1 Municipal Code Chapter 12.44 Improvement Standards

12.44.080 Sanitary sewers.

A. Design Criteria for Vitrified Clay Pipe.

1. The coefficient of friction "N" shall be 0.013.
2. The minimum velocity shall be two feet per second.
3. The maximum velocity shall be ten feet per second.
4. Flow factors shall be as follows:

Land Use	Peak Design Flow Factor (cubic feet/second/acre)
Single family	0.0065
Multifamily	0.0115
Commercial	0.0065
Light Industrial	0.0080
Heavy Industrial	0.0100
Other	Determined individually

5. Design shall include the full peak flow for the contributory area.

B. Slopes of Collector Lines.

Size	Minimum slope
4"	2.00%
6"	0.65%
8"	0.44%
10"	0.33%
12"	0.26%
15"	0.19%
18"	0.12%
21"	0.10%
24"	0.08%
27"	0.068%

C. Laterals.

1. Lateral serving single-family residences shall have a minimum diameter of four inches.

SEWER SYSTEM MANAGEMENT PLAN

2. Laterals serving multifamily residences shall have a minimum diameter of six inches.
3. The minimum cover at the property line shall be three and one-half feet.
4. Cleanout shall be required at the property line.

D. Minimum Size for Mains.

1. The minimum size for mains in residential areas shall be six inches.
2. The minimum size for mains in commercial and industrial areas shall be eight inches.

E. Other Requirements.

1. Sewer easements shall be a minimum of ten feet wide.
2. Sewers shall be located in the street.
3. Manholes shall be spaced not more than three hundred feet apart. They shall be eccentric.
4. The minimum cover over a main shall be five feet.
5. A minimum clearance of one foot shall be maintained between the sewer and crossing pipes, and fifteen-foot minimum horizontal from water lines.
6. A 0.2 foot drop shall be allowed around a ninety degree bend in a manhole.
7. Stubs shall be provided for future extensions.
8. Direction or size shall be changed only at a manhole.
9. The minimum radius of curvature of the centerline of the pipe shall not be less than three hundred feet without approval of the city engineer.
10. Flushing inlets are required on all dead end lines, whether in a cul-de-sac or at a dead end street, except where the line is terminated at a manhole. Flushing inlets shall be located not more than one hundred fifty feet from a manhole. Lines shall be constructed through the development to upstream properties and shall include capacity for the upstream area.
11. Drop manholes shall be required where sewer lines do not channelize through the bottom of the manhole. (Ord. 1352 § 1 (part), 1980: prior code § 21-7.8)

SEWER SYSTEM MANAGEMENT PLAN

Appendix 5-2 City of San Bruno Standard Plans and Specifications Table of Contents

TABLE OF CONTENTS

PART 1 – STANDARD REQUIREMENTS

A. Bid Information

00 01 01	Project Title Page
00 01 07	Seals Page
00 01 10	Table of Contents
00 01 50	List of Drawings, Tables, and Schedules
00 10 00	Notice Inviting Bids
00 21 00	Instructions to Bidders
00 24 13	Scope of Bids
00 31 32	Geotechnical Data and Existing Condition

B. Bid Forms and Supplements

00 41 00	Bid Proposal
00 41 70	Addenda Acknowledgement
00 43 13	Proposal Guarantee (Bid Bond)
00 43 25	Substitution Request Form
00 43 36	Subcontractor List
00 45 13	Statement of Qualifications (SOQ) for Construction
00 45 14	Bidder Registration and Certification
00 45 19	Non-collusion Affidavit

C. Contract Forms and Supplements

00 50 20	Bid Addendum
00 50 50	Notice of Intent to Award for Construction
00 51 00	Notice of Award
00 52 00	Contract Agreement
00 52 17	Agreement and Release of Any and All Claims
00 55 00	Notice to Proceed
00 61 13.13	Construction Performance Bond
00 61 13.16	Construction Labor and Material Payment Bond
00 61 16	Escrow Agreement for Security Deposits in Lieu of Retention
00 61 19	Maintenance and Warranty Bond

D. Contract Conditions

00 72 00	General Conditions
----------	--------------------

PART 2 – GENERAL REQUIREMENTS

01 11 00	Summary of Work
01 20 00	Measurement and Payment Procedure
01 26 00	Contract Modification Procedures
01 31 14	Coordination, Public Notification, and Project Requirements
01 31 19	Project Meetings
01 32 16	Progress Schedules and Reports
01 33 00	Submittal Procedures
01 41 00	Regulatory Requirements
01 42 16	Definitions
01 51 00	Temporary Facilities and Controls
01 56 36	Temporary Site Security and Safety
01 60 00	Product Requirements
01 71 13	Mobilization, Site Maintenance, and Demobilization
01 74 00	Cleaning
01 77 00	Contract Closeout
01 78 39	Project Record Documents

PART 3 – TECHNICAL SPECIFICATIONS

Division 2	Existing Conditions
02 00 01	Basic Site Materials and Methods
02 41 13	Selective Site Demolition

Division 9	Finishes
09 90 00	Painting and Coating

Division 10	Specialties
10 14 00	Signage

Division 26	Electrical
26 56 19	Roadway Lighting

Division 31	Earthwork
31 11 00	Clearing and Grubbing Preparation
31 22 00	Grading
31 23 00	Excavation and Fill
31 23 13	Subgrade Preparation
31 23 33	Trenching and Backfilling
31 25 00	Erosion and Sediment Controls

Division 32	Exterior Improvements
32 12 16	Asphalt Paving

SEWER SYSTEM MANAGEMENT PLAN

32 12 33	Crack Sealing
32 12 36	Slurry Seal
32 16 00	Curbs, Gutters, Sidewalk, and Driveway
32 17 23	Pavement Markings
Division 33	Utilities
33 10 00	Water Utilities
33 30 00	Sanitary Sewerage Utilities
33 31 50	Bypass Pumping
33 40 00	Storm Drainage Utilities
33 46 00	Sub-drainage
Division 34	Transportation
34 40 00	Traffic Signals

PART 4 – STANDARD DRAWINGS

A. Street Development

ST – 01	Curb and Gutter
ST – 02	Sidewalk
ST – 03	Undercurb Drain
ST – 04	Residential Driveway
ST – 05	Commercial Driveway
ST – 06	Trench Construction
ST – 07	Monitoring Well Abandonment

B. Water System

W – 01	Meter Bypass
W – 02	Air Relief Valve
W – 03	Backflow Preventer
W – 04	Cap & Riser Blow Off Assembly
W – 05	Combination Fire and Domestic Water Service
W – 06	Automatic Blow Off
W – 07	Thrust Blocks
W – 08	Monitoring Well Abandonment

C. Sanitary Sewer System

SS – 01	Sanitary Sewer Manhole
SS – 02	4 – inch Sewer Cleanout
SS – 03	Inside Drop Manhole
SS – 04	Bolt-Down MH Frame and Cover
SS – 05	Manhole Frame and Cover
SS – 06	Sewer Lateral

SEWER SYSTEM MANAGEMENT PLAN

D. Storm Drain System

SD – 01 Catch Basin – Plan, Section, & Gutter Depression

SD – 02 Catch Basin – Section a& Details

E. Miscellaneous

M – 01 Project Sign Template

SEWER SYSTEM MANAGEMENT PLAN

Appendix 5-3 Standard Plans and Specifications Section 33 30 00 Table of Contents

PART 1 – GENERAL

- 1.01 WORK INCLUDED
- 1.02 RELATED REQUIREMENTS
- 1.03 REFERENCE STANDARDS
- 1.04 QUALITY ASSURANCE
- 1.05 SUBMITTALS

PART 2 – PRODUCTS

- 2.01 GENERAL
- 2.02 SEWER MAINS
- 2.03 MANHOLES
- 2.04 MANHOLE FRAMES AND COVERS
- 2.05 SANITARY SEWER CLEANOUTS
- 2.06 BACKWATER VALVE
- 2.07 TRAPS/INTERCEPTORS/SEPARATORS
- 2.08
- 2.09 BACKFILL MATERIALS
- 2.10 MINOR CONCRETE

PART 3 – EXECUTION

- 3.01 TRENCH EXCAVATION
- 3.02 INITIAL BACKFILL
- 3.03 COMPACTION
- 3.04 PIPE INSTALLATION
- 3.05 SEWER SLIP-LINING
- 3.06 PIPE BURSTING
- 3.07 UTILITY AND WATER CLEARANCES
- 3.08 TRENCH BACKFILL
- 3.09 CONNECTION TO EXISTING MANHOLES
- 3.10 CONNECTION TO EXISTING PIPE
- 3.11 SIDE SEWER CONNECTIONS TO MAIN SEWERS
- 3.12 MANHOLES
- 3.13 ADJUSTING EXISTING FRAMES AND COVERS TO GRADE
- 3.14 PUMPING FACILITIES
- 3.15 LATERALS - CLEANOUTS
- 3.16 CLEANING SANITARY SEWERS
- 3.17 RECONSTRUCTION OF EXISTING STRUCTURES
- 3.18 TESTING SANITARY SEWERS
- 3.19 CLOSED CIRCUIT TELEVISION INSPECTION OF SEWER LINES

SEWER SYSTEM MANAGEMENT PLAN

- 3.20 SANITARY SEWER PLUGS
- 3.21 ABANDONMENT OF SANITARY PIPES AND MANHOLES
- 3.22 REPAIR/RESTORATION OF PROPERTY
- 3.23 CONSTRUCTION PROCEDURES, CONNECTIONS AND SYSTEM REROUTING
- 3.24 BYPASS PUMPING/SEWAGE FLOW CONTROL
- 3.25 AS-BUILT DRAWINGS

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 WORK INCLUDED
- 4.02 SEWER MAINS
- 4.03 LATERALS
- 4.04 MANHOLES

APPENDIX 6

Overflow Emergency Response Documents

Appendix 6 includes the following:

Sanitary Sewer

6-1 Spill Response Plan Table of Contents

6-2 SSOBRP Guide to Reporting to Regulatory Authorities

SEWER SYSTEM MANAGEMENT PLAN

Appendix 6-1 Sanitary Sewer Overflow and Backup Response Plan Table of Contents

City of San Bruno, CA

Sanitary Sewer Overflow and Backup Response Plan Table of Contents

Response Plan Binder (PB)

Purpose, Policy and Definitions	PB-1
Sewer Overflow/Backup & Unauthorized Discharge Response Summary	-2
Receiving a Sewage Overflow/Backup Report	-3

Field Guide (FG)

Customer Relations Practices Following a Sewer Backup	FG-1
Line Clearing SOPs	
How to Use a Hydro-flusher	FG-2.1
How to Use a Continuous Rodder	-2.2
Containment Procedures	FG-3
Flow Volume Estimation Procedures	
Contained Volume	FG-4.1
Contained in Roadway Gutter	-4.2
Counting Upstream Connections	-4.3
Bypass Pump Selection Tables	
0-25 Feet Total Lift	FG-5.1
25-50 Feet Total Lift	-5.2
Determining Overflow Rates from a Manhole	
Flow from a Manhole Picture Matching	FG-6.1
Flow from a Manhole with Cover in Place Tables	-6.2
Flow from a Manhole with Cover Removed Tables	-6.3
Flow from a Manhole Pick Hole Tables	-6.4
Sewer Overflow Response Tactics Guide	FG-7

Regulatory Notifications Packet (RN)

Instructions	Envelope
Guide to Reporting to Regulatory Authorities	RN-1
Fax Reporting Form: To Water Board	-2
Fax Reporting Form: To Local Health Agency	-3

Field Sampling Kit (FS)

Procedures for Sampling Receiving Waters and Posting	
Warnings after a Sewage Spill	FS-1
Sample Collection Chain of Custody Record	-2
Kit Contents	N/A
Cooler w/ice pack	

SEWER SYSTEM MANAGEMENT PLAN

Latex gloves
Safety glasses
20 Sample bottle labels
Waterproof Pen (i.e. Sharpie®)
10 Total/Fecal/Enterococcus Coliform sample bottles (100ml sterilized bottle)
Disposable Camera
Chain of Custody Form

Sewer Backup Packet (BP)

Response Instructions envelope label
Response Flowchart..... BP-1
First Responder Form-2
Claims Submittal Checklist-3
Sewer Lateral CCTV Report.....-4
Collection System Failure Analysis Form-5
Sewer Overflow Report -Form
Customer Service Packet
 Instructions -envelope
 Customer Information letter CS-1
 Claim Form-2
 Sewer Spill Reference Guide pamphlet
Sewer Maintenance Door Hanger N/A
Sewer Spill Reference Guide pamphlet

Sanitary Sewer Overflow Packet (OP)

Instructions and Chain of Custody Envelope Label
Responding to a Sanitary Sewer Overflow OP-1
Sewer Overflow Report-2
Collection System Failure Analysis Form-3
Sewer Spill Reference Guide pamphlet
Sewer Maintenance Door Hanger N/A

Miscellaneous

Public Posting
Sewer Maintenance Door Hanger
Sewer Spill Reference Guide

SEWER SYSTEM MANAGEMENT PLAN

Appendix 6-2 SSOBRP Guide to Reporting to Regulatory Authorities

City of San Bruno	RN-1
Regulatory Notifications Packet	Side A
Guide To Reporting To Regulatory Authorities	

READ ME FIRST:

ALWAYS document regulatory reporting using RN-4: SSO 24-Hour Notification/24-Hour Certification Worksheet, regardless if the reporting is done during business hours or after hours.

Primary Reporting Summary

Refer to Side B for contact information, timeframes and reporting procedures

If the backup or SSO:	Then contact:
<ul style="list-style-type: none"> • 1,000 gal. and/or • Results in a discharge into a drainage channel or a surface water, and/or • Discharged to a storm drain and was not fully recovered 	<ul style="list-style-type: none"> • California Emergency Management Agency • Regional Water Quality Control Board • San Mateo County Health Department • State Water Resources Control Board
• Reached waters of the State	• All of the above plus Fish and Game
• Required posting of public warning signs	• San Mateo County Health Department
• Was caused by problems with a private service lateral	• <u>Optional</u> reporting to Regional Water Quality Control Board and State Water Resources Control Board
• All SSOs & Backups from a public sewer	• State Water Resources Control Board

Persons authorized to perform regulatory reporting:
<ul style="list-style-type: none"> • Wastewater Division Field Supervisor • Services Manager/Public Works • Deputy Director of Public Works • SSO Pump Mechanics Category 1 (<i>after hours only</i>)

Legally Responsible Official (LRO) authorized to electronically sign SWRCB online SSO reports:
Wastewater Division Field Supervisor Business hours: 650.333.7130 After Hours: 650.333.7707

Additional External Notifications:			
Report to:	Business hours	After hours	Trigger for reporting:
BrUCE Caray, Claims Examiner, ABAG Plan Corporation	510.464.7548	209.388.5609	SSO's impacting private property that may be due to a failure in the City sewer or any SSO where the City believes a claim for damages may be submitted against the owner.
If you do not receive a call back from Bruce Caray within 30 minutes, call: Angela Salisbury, Claims Manager, ABAG Plan Corporation	510.464.7554	510.759.2898 510.582.2024	

Internal Reporting Requirements:	
Report to:	Trigger for reporting:
Dennis – Is there anybody internally you want notified of sso's/backups meeting certain criteria (i.e. into a business notify City Attorney, etc.)	

SEWER SYSTEM MANAGEMENT PLAN

Appendix 6-2 - Continued SSOBRP Guide to Reporting to Regulatory Authorities

City of San Bruno			
Regulatory Notifications Packet			
Guide To Reporting To Regulatory Authorities			
Regulatory Agency	Contact Information	Report if SSO meets any of the following conditions	Timeframe
California Emergency Management Agency (CalEMA) Make certain to get a Control Number from CalEMA	telephone: 800.952.7550 / or Statewide Number	<ul style="list-style-type: none"> Results in a discharge into a drainage channel or a surface water, and/or Discharged to a storm drain & not fully recovered (regardless of volume) 1,000 gallons or more Less than 1,000 gallons 	Within 2 hours of becoming aware of the discharge Immediate reporting required as soon as practical
Regional Water Quality Control Board: San Francisco Bay RWQCB Notify the Regional Water Quality Control Board of the known details of the SSO via one the following means, in the order listed: 1. RWQCB Website (preferred means) 2. By phone 3. Fax, or a letter report (see RN-2) AND record on the Initial SSO 2-Hour Notification/24-Hour Notification form: 1) time of call; 2) whom you spoke to, or if there was no answer and you left a voice message.	Main Telephone: 510.822.2500 Main Fax: 510.822.2400 Website: http://www.rwqcb.org City Contact: Michael Chao Telephone: 510.822.2399	<ul style="list-style-type: none"> Results in a discharge into a drainage channel or a surface water, and/or Discharged to a storm drain & not fully recovered (regardless of volume) 1,000 gallons or more Less than 1,000 gallons Was caused by problems with a private service lateral 	Within 2 hours of becoming aware of the discharge AND within 24 hrs submit certification to RWQCB that CalEMA and County Health Dept have been notified. Immediate reporting required as soon as practical Optional reporting within 30 Days
County Health Department San Mateo County Health Department Notify County Health Department of the known details of the SSO using RN-3	Business Hours Telephone: 650.372.6275 Main Line: 650.372.2500 Fax: 650.355.7382	<ul style="list-style-type: none"> Results in a discharge into a drainage channel or a surface water, and/or Required Posting or Public Warning Signs 	Immediate reporting required (within 2 hours of becoming aware of the discharge) Immediate reporting required as soon as practical
State Water Resources Control Board 1. Go to the CWSQS Online SSO Reporting Database 2. Enter User Name & Password 3. Enter requested information using information on the completed Sewer Overflow Report	Website: http://www.dwsr.waterboards.ca.gov/dwslr/index.jsp Notes: <ul style="list-style-type: none"> All state/federal reports must be certified by the Legally Responsible Official If SSO was from a private service lateral, provide all information available, indicate cause as being a private service lateral and identify responsible party, if known. 	<ul style="list-style-type: none"> 1,000 gallons, under Discharged to a storm drain & not fully recovered (regardless of volume), and/or State that enter waters of the State All SSOs & Discharges from a public sewer Was caused by problems with a private service lateral 	Immediate, but within 3 days reporting required If you have any questions, information blank, then you must return within 15 days and complete Reporting required within 30 days after end of the month the SSO occurs in Optional reporting within 30 days
CA Dept. of Fish & Game	878.6446 9126 Napa Office 878.6356 1320 General Disposal	<ul style="list-style-type: none"> Reached surface water 	Immediate reporting required as soon as practical
U.S. Coast Guard Watch Office	510.437.3373	<ul style="list-style-type: none"> Spills that enter San Francisco Bay 	Immediate reporting required as soon as practical

APPENDIX 7

FOG Control Program Documents

Appendix 7 includes the following:

- 7-1 City of San Bruno Fats, Oils, and Grease (FOG) Program
- 7-2 FOG Ordinance
- 7-3 City of South San Francisco and San Bruno Food Services Establishments Enforcement Response Plan

SEWER SYSTEM MANAGEMENT PLAN

Appendix 7-1 San Bruno Fats, Oils, and Grease (FOG) Program

CITY OF SAN BRUNO

FATS, OILS AND GREASE (FOG) PROGRAM

I. INTRODUCTION

(1) SANITARY SEWER OVERFLOWS

Sanitary sewer overflows (SSOs) may be composed of domestic, industrial and/or commercial wastewater, depending on the pattern of land use in the area. High levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants may be present, potentially leading to a public nuisance, particularly when raw, untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing or body contact recreation. Pollution of surface or ground waters may also result from SSOs, threatening public health, adversely affecting aquatic life, and impairing the recreational use and aesthetic enjoyment of surface waters.

Major causes of SSOs include grease blockages, root infiltration, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age, pipe failures, lack of proper operation and maintenance, insufficient capacity, and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and proper operation and maintenance of the sanitary sewer system.

(2) JUSTIFICATION FOR THE IMPLEMENTATION OF A FOG PROGRAM

Approximately 37% of sewer main SSOs in San Bruno between 2007 and 2010 resulted from grease blockages, more than from any other single source. Since FOG is a significant component of the wastewater generated by food service establishments (FSEs), they are an obvious target for source control measures to reduce SSOs. There are approximately 140 FSEs in San Bruno included in the program. Through inspection and enforcement, it is the City's goal to minimize discharges of FOG to the sewer through the implementation of best management practices (BMPs) by FSEs; a corollary reduction in the number of SSOs caused by grease blockages is expected.

II. LEGAL FRAMEWORK

(1) AUTHORITY

The City of South San Francisco-San Bruno Water Quality Control Plant (WQCP) is subject to discharge requirements as set forth in Order No. R2-2008-0094, NPDES No. CA0038130. This permit requires monitoring and/or inspections of businesses that discharge to the WQCP. It is under the authority of this permit that the City of South San Francisco Environmental Compliance Inspectors perform inspections on various facilities in San Bruno that discharge wastewater to the WQCP.

15.12.060 California Plumbing Code appendices adopted.

Appendix D, "Sizing Stormwater Drainage Systems," and Appendix H, "Recommended Procedures for Design, Construction and Installation of Commercial Kitchen Grease Interceptors" are adopted. (Ord. 1331 § 2 (part), 2004) polishing wastes, or any suspended solids exceeding two hundred fifty mg/l.

(3) WASTEWATER DISCHARGE PERMIT REQUIREMENT

Throughout the service area, FSEs are required to obtain permits from the WQCP to discharge wastewater to the sanitary sewer. Such permits provide a consistent and legally enforceable framework for treatment of wastewater by FSEs. Permits are valid for three years from the date of issue, are non-transferrable, may be revoked or modified by the City, require renewal a minimum of 30 days prior to expiration, and include general discharge prohibitions and specific permit conditions. A fee (\$120) is imposed at the time of application.

(a) SPECIFIC PERMIT CONDITIONS

Specific permit conditions may include one or all of the following: right of access for City personnel, prohibition of washing outdoors where washwater may flow to the storm drain system, right of the City to collect from the facility all costs incurred as a result of a sewage spill caused by the FSE including fines imposed upon the City, requirements for grease interceptor cleaning frequency, requirement that the facility keep a log of grease interceptor maintenance, and the prohibition of dumping large quantities of greasy waste down sewer drains. Additional permit conditions may be imposed at the discretion of City personnel.

III. ADMINISTRATIVE CONTROLS

The administration of the FOG control program involves multiple departments within the City, though the primary responsibility falls on Water Quality Control. A master list of FSEs is maintained by the Environmental Compliance Program; it is used to prioritize inspections, coordinate follow-up and to keep permits current. Business license applications are forwarded from the Finance Department when FSEs move or change ownership. When new development or tenant improvement plans are submitted to the Building Department, Water Quality Control verifies that appropriate grease removal devices are to be installed as a condition of the issuance of a building permit. Water Quality also denies permit approval to projects that include the installation of new garbage disposals. City personnel advise Environmental Compliance Inspectors when SSOs are caused by grease. Municipal Code allows that a business found to be the source of such an SSO may be required to install or upgrade existing grease removal equipment. In the event that a garbage disposal is in use and is suspected to have caused a problem, Water Quality may require its removal. The Environmental Compliance Program is responsible for ensuring that FSEs comply with such requirements.

IV. INSPECTION AND MONITORING

(1) APPLICABILITY

Regulated FSEs include food production facilities not covered under the Pretreatment Program, institutional food-service establishments, full-service restaurants, fast food outlets, coffee shops and concessions associated with other businesses where food is prepared. Each is subject to periodic

- Fact sheets
- Stickers

Other outreach may include

- Information on the City's website
- Articles/Ads in newspapers
- Articles in community newsletters
- School outreach
- Chamber of Commerce outreach
- Ads in movie theaters
- Outreach at City Sponsored Events
- Ads on Public Television

APPENDIXES

A. Enforcement Response Plan for FSEs

APPENDIX A: ENFORCEMENT RESPONSE PLAN

"Notification" occurs immediately whenever an agent for, or employee of, the City is notified that a violation of a discharge permit or other prohibition of local, state, or federal statute or regulation has occurred. The notification may be verbal, telephone, fax, electronic, letter, report, written document, or other form of communication.

Advisory letters are intended to correct violations that are more serious than those listed in section (1), such as any of the following:

- conditions observed during the course of an on-site inspection or routine surveillance which may compromise a FSE's ability to comply with any element of its wastewater discharge permit;
- failure to properly maintain grease removal devices;
- operation without a valid wastewater discharge permit for more than 60 days; or
- any other violation or group of violations that the City deems to be detrimental to the Pollution Prevention Program.

Re-inspection of a violator by City personnel shall take place within thirty (30) days of the issuance of an advisory letter. Failure to correct violation(s) within that timeframe will result in the issuance of a notice of violation.

3. Notice of Violation (NOV)

When a violation or violations of a FSE's discharge permit is/are observed or reported, and, in the opinion of trained City personnel there is a potential for harm to life, health, the environment, the collection system, or the wastewater treatment plant, a Notice of Violation shall be issued to the FSE within seven (7) days of the City receiving first notice of said violation(s). "Notification" occurs immediately whenever an agent for, or employee of, the City is notified that a violation of a discharge permit or other prohibition of local, state, or federal statute or regulation has occurred. The notification may be verbal, telephone, fax, electronic, letter, report, written document, or other form of communication.

A Notice of Violation may be issued for any of the following reasons:

- failure to respond within the required timeframe to lesser enforcement actions;
- failure to correct violations as required by lesser enforcement actions;
- failure to install a grease removal device when required to do so by the City; or
- any other violation or group of violations that the City deems to be detrimental to the Pollution Prevention Program.

A. Within forty-five (45) days of the date of the notice, a plan for the satisfactory correction thereof shall be submitted to the city by the user. The FSE's written response shall describe the specific violation(s) which occurred, the cause of the violation(s), all corrective actions taken to prevent any reoccurrence of the violation(s), and the date those corrective actions were/will be taken.

user may be liable up to twenty-five thousand dollars (\$25,000) a day for each violation, as set forth in California Government Code Section 54740, San Bruno Municipal Code § 10.12.390.

In lieu of the civil penalties set forth in California Government Code Section 54740, the City may impose administrative penalties in the following amounts, as set forth in California Government Code Section 54740.5: (1) up to three thousand dollars (\$3,000) for each day for failing or refusing to timely comply with any compliance schedule established by the City; (2) up to five thousand dollars (\$5,000) per violation for each day for discharges in violation of any waste discharge limitation, permit condition, or requirement issued, reissued, or adopted by the City; (3) up to ten dollars (\$10) per gallon for discharges in violation of any suspension, cease and desist order or other orders, or prohibition issued, reissued, or adopted by the City. Furthermore, the amount of such civil administrative penalties that have remained delinquent for a period of 60 days shall constitute a lien against the real property of the discharger from which the discharge originated resulting in the imposition of the civil penalty. California Government Code § 54740.5(d)(5).

Criminal Liability: Criminal liability shall include, but not be limited to, misdemeanor prosecution under San Bruno Municipal Code Section 10.12.370. A person shall be guilty of a separate and distinct offense for each and every day during any portion of which any violation is committed, continued or permitted by any such person, and the user shall be punishable accordingly.

Injunction - Whenever a discharge of wastewater is in violation of the provisions of this plan or otherwise causes or threatens to cause a condition of contamination, pollution or nuisance, an injunction may be sought to restrain the continuance of such discharge. The City may petition the Superior Court for the issuance of a temporary or permanent injunction, or both, as the case may be, restraining the continuance of such discharge. The city may also seek an injunction against nondischarge violation of pretreatment standards or requirements. San Bruno Municipal Code § 10.12.400

III. Administrative Citations

The City reserves the right to issue Administrative Citations in accordance with the City's Municipal Code, 5.08.040. Every violation determined to be an infraction is punishable by: (1) a fine not exceeding one hundred dollars for a first violation; (2) a fine not exceeding two hundred dollars for a second violation of the same ordinance; and (3) a fine not to exceed five hundred dollars for each additional violation of the same ordinance within one year. Every violation determined to be a misdemeanor is punishable by a fine not exceeding \$1,000 per day. Administrative citations may be issued at any level of enforcement, though generally fines are issued only in conjunction with notices of violation or administrative actions

SEWER SYSTEM MANAGEMENT PLAN

Appendix 7-2 FOG Ordinance

ORDINANCE OF THE CITY OF SAN BRUNO REPEALING AND REENACTING
CHAPTER 10.12 OF THE SAN BRUNO MUNICIPAL CODE RELATING TO
WASTEWATER QUALITY CONTROL

The City Council of the City of San Bruno ordains as follows:

Section 1. Chapter 10.12 of the San Bruno Municipal Code is repealed and reenacted to read as follows:

Chapter 10.12 WATER QUALITY CONTROL

10.12.010 Purpose and intent.

The cities of San Bruno and South San Francisco jointly own the South San Francisco and San Bruno Water Quality Control Plant, which is operated by the city of South San Francisco. As the operator of the plant, the city of South San Francisco administers, implements and enforces the city of San Bruno's pretreatment program, including but not limited to, the provisions set forth in this chapter.

This chapter sets forth uniform requirements for direct and indirect contributors into the POTW and enables the cities of San Bruno and South San Francisco and the POTW to comply with all applicable state of California laws (Water Code Section 1300 et seq.) and federal laws required by the Clean Water Act of 1977 (33 U.S.C. Section 1251 et seq.) and the General Pretreatment Regulations (40 CFR, Part 403).

The objectives of this chapter are:

- (a) To prevent the introduction of pollutants into the POTW which will upset or interfere with the operation of the POTW or contaminate the resulting sludge;
- (b) To prevent the introduction of pollutants into the POTW which will pass through the POTW, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the POTW;
- (c) To improve the opportunity to recycle and reclaim wastewaters and sludges from the POTW;
- (d) To provide for equitable distribution of the cost of the POTW; and
- (e) To prevent the exposure of workers at the POTW to chemical hazards.

This chapter provides for the regulation of direct and indirect dischargers to the POTW through the issuance of permits to certain nondomestic users and through enforcement of general requirements for all users, authorizes monitoring and enforcement activities, requires user reporting, assumes that existing customer's

10.12.030 Definitions.

"Act" means the Federal Water Pollution Control Act, also known as the Clean Water Act, 33 U.S.C. Section 1251 et seq., as amended.

"Authorized representative" means:

(1) If the user is a corporation:

(a) The president, secretary, treasurer, or a vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(b) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for individual wastewater discharge permit requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) If the user is a partnership or sole proprietorship: a general partner or proprietor, respectively.

(3) If the user is a federal, state, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or designee.

(4) The individuals described in subsections (1) through (3) may designate a duly authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the POTW.

"Best management practices" mean schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to waters of the United States and to implement the discharge prohibitions set forth in Section 10.12.150. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Biochemical oxygen demand (BOD)" means the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five days at twenty degrees centigrade expressed in terms of weight and concentration as milligrams per liter.

"Food service establishment" means a facility operating in a permanently constructed structure such as a room, building or place, or portion thereof, maintained, used or operated for the purpose of storing, preparing, serving or manufacturing, packaging or otherwise handling food and/or beverage for sale to other entities, or for consumption by the public, its members or employees, and which has any process or device that uses or produces grease, or grease vapors, steam, fumes, smoke or odors that are required to be removed by an exhaust hood pursuant to California Health and Safety Code section 114149.1 or in accordance with the California Retail Food Code (California Health and Safety Code sections 113700 et seq.).

"Garbage" means solid wastes from the preparation, cooking and dispensing of foods, and from the handling, storage and sale of produce. "Properly ground garbage" is the waste from the preparation, cooking and dispensing of foods which have been ground to such a degree that all particles may be carried freely under the flow conditions normally prevailing in public sewers.

"Grab sample" means a sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and over a period of time not to exceed fifteen minutes.

"Grease" means greases, oils, fats, fatty acids, waxes, soaps or other matter which is so determined in accordance with the standard methods examination for grease in polluted waters. Grease includes any substance such as vegetable or animal product that is used in, or is a byproduct of, the cooking or food preparation process, and that becomes or may become viscous, or solidifies or may solidify, with a change in temperature or other conditions.

"Grease interceptor" means a multi-compartment device that is generally required, according to the California Plumbing Code, to be located underground between a food service establishment and the connection to the public sewer. These devices primarily use gravity to separate grease from the wastewater as it moves from one compartment to the next. To be effective, these devices must be cleaned, maintained and have the grease removed and disposed of in a proper manner, at regular intervals.

"Grease removal device" means any grease interceptor, grease trap or other mechanism or device which attaches to, or is applied to, wastewater plumbing fixtures and lines, the purpose of which is to trap, collect or treat grease prior to it being discharged into the POTW.

"Holding tank waste" means any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks and vacuum-pump tank trucks.

"Indirect discharge" means the discharge or the introduction of nondomestic pollutants from any source regulated under Section 307(b), (c) or (d) of the Act, into the POTW (including holding tank waste discharged into the system).

"Industrial user" means a source of indirect discharge.

"National pollution discharge elimination system (NPDES) permit" means a permit issued pursuant to Section 402 of the Act (33 U.S.C. 1342).

"Natural outlet" means any outlet into a watercourse, pond, ditch, lake, bay, ocean or other body of surface water, or into the groundwater.

"New source" means any building, structure, facility or installation from which there is, or may be, a discharge of pollutants, the construction of which began after the publication of proposed pretreatment standards pursuant to Section 307(c) of the Act which will be applicable to such source if such standards are promulgated, provided that:

(1) The building, structure, facility or installation is constructed at a site at which no other source is located; or

(2) The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(3) The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source, should be considered.

Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility or installation meeting the criteria of subsection (2) or (3) but otherwise alters, replaces, or adds to existing process or production equipment.

Construction of a new source as defined under this paragraph has commenced if the owner or operator has:

(1) Begun, or caused to begin, as part of a continuous onsite construction program: (A) any placement, assembly or installation of facilities or equipment; or (B) significant site preparation work including clearing, excavation, or removal of existing buildings, structures or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(2) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this subsection.

"Noncontact cooling water" means water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

the purposes of this chapter, POTW shall also include any sewers that convey wastewaters to the plant from persons outside the city, who are, by contract or agreement with the city, users of the POTW.

"Sanitary sewage" means domestic or domestic-like sewage.

"Sewage" (see wastewater) means water-carried and liquid wastes from residences, business buildings, institutions and industrial establishments, together with such groundwaters, surface waters, and stormwaters as may be present, or any combination of such wastes and waters.

"Sewer" means a pipe or conduit for carrying water, sewage and/or wastewater; and the following:

(1) "Building sewer" means a sewer conveying wastewater from the premises of a user to a public sewer.

(2) "Public sewer" means a sewer which is controlled by the city or other public agency.

(3) "Sanitary sewer" means a sewer for domestic, commercial and industrial waste to which stormwaters, surface waters and groundwaters are not intentionally admitted.

(4) "Side sewer" means a sewer conveying the wastewater of a discharge from a residence, building or other structure to a public sewer, including direct connections where permitted.

(5) "Storm sewer" means a sewer which carries storm and surface waters but from which sewage and polluted industrial, commercial and institutional wastes are required to be excluded.

"Significant industrial user" means:

(1) All categorical industrial users;

(2) Any noncategorical industrial user that: (A) discharges an average of twenty-five thousand gallons or more per day of process wastewater to the POTW; or (B) contributes a process wastestream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or (C) has a reasonable potential, in the opinion of the superintendent, to adversely affect the POTW's operation (i.e., inhibition, pass through of pollutants, sludge contamination, or endangerment of POTW and collection system workers) or for violating any pretreatment standard or requirement.

(3) The superintendent may determine that a categorical industrial user is a nonsignificant categorical industrial user rather than a SIU on a finding that the industrial user never discharges more than one hundred gallons per day (gpd) of total categorical

"Toxic pollutant" means any pollutant or combination of pollutants listed as toxic in regulations promulgated by the EPA under the provision of Section 307(a) of the Act (33 U.S.C. 1317) or other acts.

"Upset" means an incident in which one or more pollutants cause the removal efficiency for a treatment process at the POTW to be dramatically reduced.

"User" means any person who discharges, or causes or permits the discharge of, wastewater into the POTW, including, but not limited to, industrial users.

"Waste" means all waste substances, liquid, solid, gaseous or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, personal service industry, or processing operation of whatever nature.

"Wastewater" means the liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, whether treated or untreated, which is contributed into or permitted to enter the POTW.

"Wastewater discharge permit" or "permit" means an SIU permit, a moderate industrial user permit or other permit issued to a user pursuant to this chapter.

"Water quality control plant" means that portion of the POTW which is designed to provide treatment of wastewater.

"Waters of the state" or "watercourse" means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

10.12.040 Wastewater discharge permits.

(a) It is unlawful to discharge without a permit into any natural outlet within the city or into the POTW any wastewater except as authorized by the superintendent in accordance with the provisions of this chapter.

(b) All significant industrial users proposing to discharge wastewater to the POTW shall obtain a wastewater discharge permit from the superintendent before discharging to any public sewer. Moderate industrial users may be required to obtain a permit as deemed necessary by the superintendent.

(c) Users required to obtain a wastewater discharge permit shall complete and file with the POTW an application in the form prescribed by the POTW, accompanied by a fee as set forth in the POTW's master fee schedule. Proposed new users shall apply for a permit at least ninety days prior to the date upon which any discharge will begin. Users shall be classified as either residential, institutional, commercial, or industrial. In support of the application, the users shall submit, in units and terms appropriate for evaluation, the following information:

of progress, the reason for the delay, and the steps being taken by the user to return the construction to the schedule established. In no event shall more than nine months elapse between such progress reports to the superintendent;

(10) Each product produced by type, amount, process or processes and rate of production;

(11) Type and amount of raw materials processed (average and maximum per day);

(12) Number and type of employees, hours of operation of plant and proposed or actual hours of operation of pretreatment system;

(13) A baseline monitoring report (BMR) must be submitted, in compliance with, and containing all the information required by, 40 CFR 403.12 (b); and

(14) Such other information as may be deemed by the superintendent to be necessary to evaluate the permit application.

The BMR, ninety-day compliance reports, and periodic compliance reports for categorical industrial users must be signed by the appropriate official as specified in 40 CFR 403.12(1), and contain the certification statement in 40 CFR 403.6(a)(2)(ii).

10.12.050 Sewer design and construction.

All new sewers and connections to new and existing sewers shall be properly designed and constructed to prevent inflow and in accordance with the Uniform Building Code then in effect and other applicable city ordinances. Any new connections from inflow sources into the POTW are prohibited. The applicant for a permit to construct sewers or connections shall furnish the chief building inspector with a copy of the wastewater discharge permit.

10.12.060 Permit modifications.

Wastewater discharge permits subject to the categorical pretreatment standards will be modified by the POTW, as soon as possible, subsequent to a change in federal standards. Where a categorical user has not previously submitted an application for a wastewater discharge permit, the user shall apply for a wastewater discharge permit within one hundred eighty days after the promulgation of the applicable categorical pretreatment standard. In addition, a user with an existing wastewater discharge permit shall submit to the superintendent within one hundred eighty days after the promulgation of an applicable federal categorical pretreatment standard the information required by Section 10.12.040.

10.12.070 Permit conditions.

(a) Wastewater discharge permits shall be expressly subject to all provisions of this chapter and all other applicable regulations, user charges, and fees established

(6) Requirements for installation and maintenance of inspection, monitoring and sampling facilities and monitoring equipment;

(7) A statement that compliance with the individual wastewater discharge permit does not relieve the permittee of responsibility for compliance with applicable pretreatment standards, including those that become applicable during the term of the individual wastewater discharge permit;

(8) Requirements for notification to the POTW of any increased contributions of pollutants, changes in the nature of pollutants, or of any introduction of new wastewater constituents where such contributions would cause the POTW to violate its NPDES permit. In compliance with 40 CFR 403.12(j), all industrial users must notify the POTW prior to any increased contributions of pollutants, or changes in the character of pollutants in their discharges, including hazardous wastes; and

(9) Other conditions as deemed appropriate by the superintendent to ensure compliance with this chapter, and state and federal laws, rules and regulations.

(d) The superintendent or the superintendent's designee may amend the terms and conditions of a wastewater discharge permit or add new and different terms and conditions to meet the requirements of applicable federal and state statutes, city ordinances and administration orders issued pursuant thereto.

10.12.080 Permit duration.

Permits shall be issued for a specified time period, not to exceed five years. A permit may be issued for a period less than a year or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of ninety days prior to the expiration of the user's existing permit. The terms and conditions of the permit may be subject to modification by the POTW during the term of the permit as limitations or requirements are modified or other just cause exists. The user shall be informed of any proposed changes in a permit at least thirty days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

10.12.090 Permit transfer.

Wastewater discharge permits are issued to a specific user for a specific operation. A wastewater discharge permit shall not be reassigned or transferred or sold to a new owner, new user, different premises, or a new or changed operation without the approval of the POTW. Any succeeding owner or users shall also comply with the terms and conditions of the existing permit.

10.12.100 Permit classifications.

Waste discharge permits shall be issued to applicable users and levied applicable fees as provided for in this chapter and shall be classified as follows:

factors as local high or low flow rates, holidays, budget cycles, etc., the superintendent may agree to alter the months during which the above reports are submitted. In cases where the pretreatment standard requires compliance with a best management practice or pollution prevention alternative, the user must submit documentation required by the superintendent or the pretreatment standard necessary to determine the compliance status of the user. All periodic compliance reports must be signed and certified in accordance with Section 10.12.140(e) of this chapter.

(4) Compliance Schedule for the Installation of Technology. The superintendent may require each user to develop a compliance schedule for the installation of technology to meet applicable pretreatment standards or requirements that complies with the requirements set forth in 40 CFR 403.12(c). The compliance schedule for the installation of technology is not conditioned on the determination of violations. Any user required to submit a compliance schedule to the superintendent shall submit progress reports to the superintendent in accordance with 40 CFR 403.12(c)(3).

(5) Report on Compliance with Categorical Deadline. Within ninety days after the final date for compliance with applicable categorical pretreatment standards, or in the case of a new source, following commencement of the discharge, all categorical industrial users shall submit to the superintendent a report containing the information set forth in paragraphs b(4) through (6) of 40 CFR 403.12. For categorical industrial users subject to equivalent mass or concentration limits established by the superintendent, the report shall contain a reasonable measure of the user's long-term production rate. For categorical industrial users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), the report shall include the user's actual production during the appropriate sampling period.

(6) Notice of Violation/Resampling Report. If sampling by a user indicates a violation, the user shall notify the POTW within twenty-four hours of becoming aware of the violation. The user shall also repeat the sampling and analysis (following the guidelines in the enforcement response plan) and submit the results of the repeat analysis to the POTW within thirty days of becoming aware of the violation. Resampling by the industrial user is not required if the POTW performs sampling at the industrial user's facility at least once per month or the POTW performs sampling at the industrial user's facility between the time when the initial sampling was conducted and the time when the user or the POTW receives the results of this sampling. Within forty-five days of detecting such violation, the user shall, unless waived by the POTW, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the user of any fines, penalties, or other liability which may be imposed pursuant to this chapter.

the industrial user's total categorical wastewater flow does not exceed any of the following:

(1) 0.01 percent of the POTW's design dry-weather hydraulic capacity or five thousand gallons per day, whichever is smaller, as measured by a continuous effluent flow monitoring device unless the industrial user discharges in batches;

(2) 0.01 percent of the design dry-weather organic (BOD or TSS) treatment capacity of the POTW; and

(3) 0.01 percent of the maximum allowable headworks loading for any pollutant regulated by the applicable categorical pretreatment standard for which approved local limits were developed in accordance with Section 10.12.160(a) of this chapter.

Reduced reporting is not available to industrial users that have in the last two years been in significant noncompliance, as defined in Section 10.12.140(b) of this chapter. In addition, reduced reporting is not available to an industrial user with daily flow rates, production levels, or pollutant levels that vary so significantly that, in the opinion of the superintendent, decreasing the reporting requirement for the industrial user would result in data that are not representative of conditions occurring during the reporting period.

(c) Recordkeeping Requirements. Users subject to the reporting requirements of this section shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this chapter, any additional records of information obtained pursuant to monitoring activities undertaken by the user independent of such requirements, and documentation associated with best management practices. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least three years. This period shall be automatically extended for the duration of any litigation concerning the user or the POTW, or where the user has been specifically notified of a longer retention period by the superintendent.

10.12.120 Monitoring facilities and programs.

(a) The superintendent may require users to conduct and maintain monitoring programs as a means of controlling the quantity and quality of the discharge so that discharges comply with the provisions of this chapter. The monitoring program shall consist of test samples and analyses, the frequency and type of which shall be specified by the superintendent. Upon demonstrating to the superintendent that the user has the necessary qualifications and equipment to conduct the monitoring program or that the user has retained the services of a qualified consultant or laboratory so certified by the State Department of Public Health, the user may conduct this monitoring program. The

superintendent, the samples must be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a twenty-four hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the superintendent, as appropriate. In addition, grab samples may be required to show compliance with instantaneous limits.

(3) For sampling required in support of baseline monitoring reports and ninety-day compliance reports required by Section 10.12.110(a)(2) and (a)(5), a minimum of four grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the superintendent may authorize a lower minimum. For the reports required by Section 10.12.110(a)(3), (a)(6) and (a)(11), the user shall collect the number of grab samples necessary to assess and assure compliance with applicable pretreatment standards and requirements.

(4) All analyses shall be performed in accordance with procedures established by the EPA pursuant to Section 304(h) of the Act and contained in 40 CFR Part 136 and amendments thereto or with any other test procedures approved by the EPA. Sampling shall be performed in accordance with the techniques approved by the EPA. Where 40 CFR Part 136 does not include sampling or analytical techniques for the pollutants in question, or where the EPA determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed using validated analytical methods or any other sampling and analytical procedures, including procedures suggested by the superintendent or other parties, approved by the EPA.

(5) If an industrial user subject to the reporting requirement in Section 10.12.110(a)(3) monitors any regulated pollutant at the appropriate sampling location more frequently than required by the POTW, using the procedures prescribed in subsection (c)(4) of this section, the results of this monitoring shall be included in the report.

10.12.130 Inspection and sampling.

(a) The POTW shall inspect as the superintendent deems necessary, the facilities of any user to ascertain whether the purpose of this chapter is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the POTW or its representative ready access at all reasonable times to all parts of the premises for the purposes of inspection, sampling, records examination and copying or in the performance of any duties.

prior to any treatment present at the facility that is representative of all wastewater from all processes.

(4) The request for a monitoring waiver must be signed by an authorized representative, and include the certification statement in Section 10.12.140(e) (40 CFR 403.6(a)(2)(ii)).

(5) Nondetectable sample results may be used only as a demonstration that a pollutant is not present if the EPA approved method from 40 CFR Part 136 with the lowest minimum detection level for that pollutant was used in the analysis.

(6) Any grant of the monitoring waiver by the superintendent must be included as a condition in the user's permit. The reasons supporting the waiver and any information submitted by the user in its request for the waiver must be maintained by the superintendent for three years after expiration of the waiver.

(7) Upon approval of the monitoring waiver and revision of the user's permit by the superintendent, the industrial user must certify on each report with the statement in Section 10.12.140(e), that there has been no increase in the pollutant in its wastestream due to activities of the industrial user.

(8) In the event that a waived pollutant is found to be present or is expected to be present because of changes that occur in the user's operations, the user must immediately comply with the monitoring requirements of Section 10.12.110(a)(3), or other more frequent monitoring requirements imposed by the superintendent, and notify the superintendent.

(9) This provision does not supersede certification processes and requirements established in categorical pretreatment standards, except as otherwise specified in the categorical pretreatment standard.

10.12.140 Pretreatment compliance.

(a) Users shall provide necessary wastewater treatment as required to comply with this chapter and shall achieve compliance with all pretreatment standards within the time limitations specified by the EPA, state or the superintendent, whichever is more stringent. Any facilities required to pretreat wastewater to a level acceptable to the POTW shall be provided, operated and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be approved by the POTW before construction of the facility. The review of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the POTW under the provisions of this chapter or regulations promulgated by the superintendent in accordance with this chapter. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to, and approved by, the POTW prior to the user's initiation of the changes.

(9) Prohibited discharges of petroleum oil, nonbiodegradable cutting oil, or products of mineral origin in amounts that cause interference or pass through;

(10) Prohibited discharges that result in toxic gases, fumes, or vapors in a quantity capable of causing worker health and safety problems;

(11) Prohibited discharges having a temperature which inhibits biological activity in the POTW resulting in interference;

(12) Prohibited discharges of wastes or wastewater containing any radioactive material, except in compliance with applicable state and federal regulations;

(13) Any other violation or group of violations that the superintendent determines will adversely affect the operation or implementation of the POTW's pretreatment program.

(c) All records relating to compliance with pretreatment standards shall be made available to city, state and federal officials upon request.

(d) The city may seek injunctive relief for noncompliance by industrial users with pretreatment standards and requirements, and may seek additional penalties pursuant to 40 CFR 403.8 (f)(1)(vi)(A).

(e) Certification Statements.

(1) Certification of Permit Applications, User Reports and Initial Monitoring Waiver. The following certification statement is required to be signed and submitted by users submitting permit applications in accordance with Section 10.12.040; users submitting baseline monitoring reports under Section 10.12.110(a)(2); users submitting reports on compliance with the categorical pretreatment standard deadlines under Section 10.12.110(a)(5); users submitting periodic compliance reports required by Section 10.12.110(a)(3); and users submitting an initial request to forego sampling of a pollutant on the basis of Section 10.12.130(d). The following certification statement must be signed by an authorized representative as defined in Section 10.12.030:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(2) Annual Certification for Nonsignificant Categorical Industrial Users. A facility determined to be a nonsignificant categorical industrial user by the superintendent pursuant to Section 10.12.030 must annually submit the following

(1) Any wastestreams with a closed-cup flashpoint of less than one hundred forty degrees Fahrenheit or sixty degrees Celsius (using the test methods specified in 40 CFR 262.21), liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the POTW or to the operation of the water quality control plant. At no time, shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system) be more than five percent nor any single reading over ten percent of the lower explosive limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides;

(2) Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the POTW or pass through the POTW inadequately treated, such as, but not limited to: grease, petroleum oil, nonbiodegradable cutting oil, or products of mineral origin, garbage with particles greater than one-half inch in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining, or processing of fuel or lubricating oil, mud, or glass grinding or polishing wastes;

(3) Any wastewater having a pH less than 5.0 units or greater than 12.0 units or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, or personnel of the POTW;

(4) Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitations set forth in a categorical pretreatment standard. A toxic pollutant shall include but not be limited to any pollutant identified pursuant to Section 307(a) of the Act (33 U.S.C. 1317);

(5) Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair;

(6) Any substance which may cause the water quality control plant's effluent or any other product, such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall a substance discharged to POTW cause the water quality control plant to be in noncompliance with sludge use or disposal criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Act, the Clean Air Act, the Toxic Substances Control Act, or state criteria applicable to the sludge management method being used;

(2) No person shall discharge, or cause to be discharged, any wastewater from a food service establishment directly or indirectly into the public sewer without first obtaining a wastewater discharge permit pursuant to this chapter.

(3) The owner of every newly constructed, remodeled, or converted commercial or industrial facility with one or more grease generating activities, including food service establishments with new or replacement kitchens, shall install or cause to be installed a grease interceptor for each grease generating activity, of a size equal to or greater than the minimum size meeting the definition of "grease interceptor," as defined in the currently adopted edition of the Uniform Plumbing Code. In no case shall any grease interceptor flow less than twenty gallons per minute (gpm). The installation of new garbage disposals in any commercial or industrial facility is prohibited.

(3) The owner of every commercial or industrial generator of grease, including food service establishments, serviced by a sewer collection line found to have a grease blockage, a history of grease blockage, or accelerated line maintenance resulting from grease disposal, shall install or cause to be installed a grease removal device upon notification by the superintendent. If heavy solids accumulate causing a sewer blockage or accelerated line maintenance, the commercial or industrial generator shall remove any garbage disposal upon notification by the superintendent.

(4) All grease removal devices shall be installed on the premises where grease is used or generated and shall be sized in conformance with the then currently adopted edition of the Uniform Plumbing Code. The contents of all grease removal devices shall be removed periodically as necessary to prevent violations of this chapter. At a minimum, the contents shall be removed every six months. All grease removal devices shall be kept in good repair, and shall be maintained in continuous operation. A log of all grease removal activities shall be maintained at the facility showing the date of removal, the amount removed and the disposition of the removed contents. The log shall be retained for a period of three years, and shall be available for inspection by POTW inspectors upon request.

(5) Grease emulsifiers or enzymes are prohibited for use in grease interceptors or traps.

(d) Discharge of Groundwater.

(1) The superintendent may approve the discharge of ground waters to the sanitary sewer only when such source is deemed unacceptable by state and federal authorities for discharge to surface waters of the United States, whether pretreated or untreated, and for which no reasonable alternative method of disposal is available. No discharge of such waters shall occur except as specifically authorized in a waste discharge permit or other written authorization.

(2) Groundwater containing petroleum products may be authorized for disposal to the sanitary sewer and shall comply with the requirements of Section 10.12.160.

(3) In the event that permission to discharge to the sanitary sewer and storm drain is denied, the waters must be disposed at a legal disposal site. The person conducting the discharge shall be required to provide proof of disposal upon the POTW's request.

10.12.160 Wastewater concentration of chemicals.

(a) It is unlawful to discharge or cause to be discharged any wastewater into the public sanitary sewers if the concentration of any of the constituents of the wastewater exceeds the local limits established by resolution or ordinance of the city council of the City of South San Francisco. (Maximum permissible concentrations are normally expressed in milligrams per liter.)

(b) State requirements and limitations on discharges shall apply in any case where they are more stringent than federal requirements and limitations or those in this chapter.

(c) The superintendent may impose quantitative limitations, e.g., pounds per day limits, on discharges or any constituent of the wastewater when the discharge or constituent may unreasonably overload, adversely affect the facilities or have a harmful effect upon the receiving waters. Mass emission rates or other similar techniques having a reasonable relationship to evaluating or measuring waste discharges may be used.

10.12.170 Federal categorical pretreatment standards.

(a) Industrial users must comply with applicable categorical pretreatment standards, prohibited discharge standards, or local limits, whichever are the most stringent.

(b) The categorical pretreatment standards, found in 40 CFR Chapter I, Subchapter N, Parts 405 through 471, are hereby incorporated into this chapter. The superintendent shall notify all affected users of the applicable reporting requirements under 40 CFR Section 403.12.

10.12.180 Modification of federal categorical pretreatment standards.

Where the water quality control plant achieves consistent removal of pollutants limited by federal pretreatment standards, the POTW may apply for modification of specific limits in the federal pretreatment standards. "Consistent removal" means reduction in the amount of a pollutant or alteration of the nature of the pollutant by the water quality control plant to a less toxic or harmless state in the effluent which is achieved by the system in ninety-five percent of the samples taken when measured according to the procedures set forth in 40 CFR, Part 403, "General Pretreatment Regulations for Existing and New Sources of Pollution." The POTW may then modify pollutant discharge limits in the federal pretreatment standards if the requirements contained in 40 CFR Section 403.7 are fulfilled and prior approval is obtained.

shall submit the following information to the POTW: (a) a description of the discharge and the cause of the upset or unanticipated bypass; (b) the period of noncompliance including exact dates and times or, if not corrected, the anticipated time the upset/bypass is expected to continue; and (c) the steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the upset or bypass.

10.12.220 Batch discharges.

Batch discharges to the sanitary sewer of five thousand gallons or more of any regulated constituents or pollutants not consistent with a user's application must receive approval from the environmental compliance office prior to the discharge. The user's request shall indicate the quantity, constituents, and proposed time of the discharge.

10.12.230 Harmful discharges.

(a) The superintendent may suspend the wastewater treatment service or a wastewater discharge permit when such suspension is necessary, in the opinion of the superintendent, in order to stop an actual or threatened discharge which presents or may present an imminent or substantial endangerment to the health or welfare of persons or to the environment, or threatens to cause interference to the POTW, or causes or threatens to cause the POTW to violate any condition of its NPDES permit.

(b) Any user notified of a suspension of the wastewater treatment service or the wastewater discharge permit shall immediately stop or eliminate the discharge. In the event of a failure of the user to comply voluntarily with the suspension order, the city shall take such steps as deemed necessary including a cease and desist order or immediate severance of the sewer connection, to prevent or minimize damage to the POTW or endangerment to the POTW or endangerment to any individuals. The city shall reinstate the wastewater discharge permit or the wastewater treatment service upon proof of the elimination of the noncomplying discharge. A detailed written statement submitted by the user describing the causes of the harmful discharge and the measures taken to prevent any future occurrence shall be submitted to the city within fifteen days of the date of occurrence.

10.12.240 Fees and financial guarantees.

(a) The city may adopt fees to provide for the recovery of costs from users of the POTW. Such fees may include, but are not limited to, connection charges, permits, monitoring, inspections and surveillance procedures, accidental discharge matters, appeals, reimbursement of costs incurred by city for removal of pollutants, and any other fees the city deems necessary to carry out the requirements of this chapter. The applicable fees shall be as set forth in the city's master fee schedule.

(b) A sewer connection fee shall be paid by the user or parcel owner for connection to a public sanitary sewer at the time the building permit is issued, or if no building permit is necessary, prior to the time the connection is operational. When a change in use from residential to commercial occurs, the difference in connection charges shall be paid.

industrial user to submit a written response describing the corrective action taken to abate the violation.

(b) When conditions are observed during the course of an on-site inspection or routine surveillance which may compromise an industrial user's ability to comply with its wastewater discharge permit.

(c) When a user fails to promptly submit self-monitoring reports or sample test results as required in the industrial user's wastewater discharge permit.

10.12.280 Notice of violation.

Whenever the source control inspector finds that any user has violated or is violating the provisions of this chapter, the inspector may serve upon such user a written notice stating the nature of the violation. Within forty-five days of the date of the notice, a plan for the satisfactory correction thereof shall be submitted to the city by the user.

10.12.290 Show cause hearing.

(a) Any user who causes or allows an unauthorized discharge to enter the POTW may be ordered to show cause before the deputy director why the proposed enforcement action should not be taken. Notice of the hearing shall be served personally or by registered or certified mail return receipt requested at least ten days before the hearing. Service may be made on any agent or officer of a corporation.

(b) After an informal hearing is held the superintendent shall render a decision in writing.

10.12.300 Abatement order.

When the city finds that a discharge of wastewater is taking place or threatening to take place in violation of prohibitions or limits of this chapter, or regulations promulgated by the superintendent in accordance with this chapter, or wastewater source control requirements or the provisions of a wastewater discharge permit, the city may issue an abatement order directing the user to:

(a) Comply forthwith;

(b) Comply in accordance with a reasonable time schedule set by the superintendent; or

(c) In the event of a threatened violation, take appropriate remedial or preventive action.

In cases of imminent harm to the public, the superintendent or city may enter private property if necessary to sever service.

(c) Within ten days of the conclusion of the hearing, the public services director shall render a written decision setting forth the factual findings. The public services director may revoke or modify the terms of the permit. The decision of the public services director is final.

10.12.340 Appeals.

(a) Review by deputy director. Any discharger affected by any decision, action, or determination, including abatement orders, made by the superintendent or deputy director in interpreting or implementing the provisions of this chapter, or any permit issued hereunder, may file with the deputy director a written request for review within ten days of such decision, action, or determination, setting forth in detail the facts supporting the request. The deputy director shall complete the review and issue a written determination within ten days after receipt of the request, unless the public services director reasonably extends the time thereof.

(b) Written appeal to public services director. The deputy director's original decision, action or determination, and action taken after review may be appealed by the discharger to the public services director by filing a written appeal within ten days after notice of the decision. The written appeal shall specify the factual and legal basis of the appeal. Within thirty days after the written appeal is filed, the public services director shall hold a hearing. Notice of the hearing shall be served personally or by registered or certified mail return receipt requested, at least ten days before the hearing. Service may be made upon any agent or officer of a corporation.

(1) At the time and place designated in the notice, the public services director shall hear and consider all relevant evidence. The hearing shall not be conducted according to the formal rules of evidence. Any relevant evidence shall be admitted if it is the type of evidence on which reasonable persons are accustomed to rely on in the conduct of serious affairs. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence, but hearsay evidence shall not be sufficient by itself to support a finding unless it would be admissible over objections in civil actions in courts of competent jurisdiction in this state. The discharger may represent itself or be represented by anyone of its choice. The hearing may be continued from time to time.

(2) Within ten days after the conclusion of the hearing, the public services director shall render a written decision and where applicable an order of abatement. This decision shall set forth the factual findings made, the conclusion reached, any abatement required, and the date by which such abatement shall occur. The decision of the public services director is final.

10.12.350 Damage, obstruction or impairment to facilities.

Any person who intentionally or negligently damages, obstructs or otherwise impairs a public sewer, water quality control plant or appurtenance thereto shall be

prosecution and upon conviction, shall be punished in accord with the provisions of Chapter 1.28 of this code.

10.12.390 Civil damages.

Any person who violates any provision of this chapter, any wastewater discharge permit, or any order issued pursuant to this chapter or who creates a condition of pollution is hereby deemed to have created a public nuisance. Such person(s) shall be strictly liable for the sum of ten thousand dollars for each day, or portion thereof, during which the violation occurs.

In addition, a user may be liable for up to twenty-five thousand dollars a day for each violation, as set forth in California Government Code Section 54740. In lieu of the civil penalties, the city may impose administrative penalties in the following amounts, as set forth in California Government Code Section 54740.5: (a) up to two thousand dollars for each day for failing or refusing to furnish technical or monitoring reports; (b) up to three thousand dollars for each day for failing or refusing to timely comply with any compliance schedule established by the city; (c) up to five thousand dollars per violation for each day for discharges in violation of any waste discharge limitation, permit condition, or requirement issued, reissued, or adopted by the city; (d) up to ten dollars per gallon for discharges in violation of any suspension, cease and desist order or other orders, or prohibition issued, reissued, or adopted by the city. Furthermore, the amount of such civil administrative penalties that have remained delinquent for a period of sixty days shall constitute a lien against the real property of the discharger from which the discharge originated resulting in the imposition of the civil penalty.

10.12.400 Injunction.

Whenever a discharge of wastewater is in violation of the provisions of this chapter or otherwise causes or threatens to cause a condition of contamination, pollution or nuisance, an injunction may be sought to restrain the continuance of such discharge. The city may petition the Superior Court for the issuance of a temporary or permanent injunction, or both, as the case may be, restraining the continuance of such discharge. The city may also seek an injunction against nondischarge violation of pretreatment standards or requirements, or any other violation of this chapter.

10.12.410 Cost recovery by city.

In addition to the penalties provided herein, the city may recover reasonable attorneys' fees, court costs, court reporters' fees and other expenses of litigation against the person found to have violated this chapter or the orders, rules, regulations, and permits issued hereunder.

10.12.420 Remedies cumulative.

The remedies identified in this chapter are in addition to and do not supersede or limit any other civil or criminal remedies.

SEWER SYSTEM MANAGEMENT PLAN

Appendix 7-3 City of South San Francisco and San Bruno Food Services Establishments Enforcement Response Plan



City of South San Francisco-San Bruno
Water Quality Control Plant
Office of Environmental Compliance

ENFORCEMENT RESPONSE PLAN FOR Food Service Establishments

Introduction

This document establishes procedures by which staff of the City of South San Francisco-San Bruno Water Quality Control Plant ("WQCP") shall follow when investigating and responding to instances of Food Service Establishment (FSE) discharge permit noncompliance. It is intended to ensure that enforcement responsibilities shall be implemented in a consistent, fair, and timely manner.

The City of South San Francisco-San Bruno Water Quality Control Plant (WQCP) is subject to discharge requirements as set forth in Order No. R2-2008-0094, NPDES No. CA0038130. This permit requires monitoring and/or inspections of businesses that discharge to the WQCP. It is under the authority of this permit that the City of South San Francisco Environmental Compliance Inspectors inspect various facilities in San Bruno that discharge wastewater to the WQCP.

The Municipal Code of South San Francisco states:

14.08.030 Definitions.

"Grease" means greases, oils, fats, fatty acids, waxes, soaps or other matter which is so determined in accordance with the standard methods examination for grease in polluted waters.

SEWER SYSTEM MANAGEMENT PLAN

14.08.210 General discharge regulations.

(b) (2) Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the POTW or pass through the POTW inadequately treated, such as, but not limited to: grease, petroleum oil, non-biodegradable cutting oil, or products of mineral origin, garbage with particles greater than one-half inch in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining, or processing of fuel or lubricating oil, mud, or glass grinding or polishing wastes;

(c) Fats, Oils and Grease.

(1) It is unlawful for any person to dispose of any grease, or cause any grease to be disposed, by discharge into any drainage piping, by discharge into any public or private sanitary sewer, by discharge into any storm drainage system, or by discharge to any land, street, public way, river, stream or other waterway.

(2) The owner of every newly constructed, remodeled, or converted commercial or industrial facility with one or more grease generating activities, including food service facilities with new or replacement kitchens, for which a building permit application is submitted on or after January 1, 2010, shall install or cause to be installed a grease interceptor for each grease generating activity, of a size equal to or greater than the minimum size meeting the definition of "grease interceptor," as defined in the currently adopted edition of the Uniform Plumbing Code. In no case shall any grease interceptor flow less than twenty gallons per minute (gpm). The installation of new garbage disposals in any commercial or industrial facility is prohibited.

(3) The owner of every commercial or industrial generator of grease, including food service facilities, serviced by a sewer collection line found to have a grease blockage, a history of grease blockage, or accelerated line maintenance resulting from grease disposal, shall install or cause to be installed a grease removal device upon notification by the superintendent. If heavy solids accumulate causing a sewer blockage or accelerated line maintenance, the commercial or industrial generator shall remove any garbage disposal upon notification by the superintendent.

(4) All grease removal devices shall be installed on the premises where grease is used or generated and shall be sized in conformance with the then currently adopted edition of the Uniform Plumbing Code. The contents of all grease removal devices shall be removed periodically as necessary to prevent violations of this chapter. At a minimum, the contents shall be removed every six months. All grease removal devices shall be kept in good repair, and shall be maintained in continuous operation. A log of all grease removal activities shall be maintained at the facility showing the date of removal, the amount removed and the disposition of the removed contents. The log shall be retained for a period of three years, and shall be available for inspection by city inspectors upon request.

SEWER SYSTEM MANAGEMENT PLAN

(5) Grease emulsifiers or enzymes are prohibited for use in grease interceptors or traps.

15.12.060 California Plumbing Code appendices adopted.

Appendix D, "Sizing Stormwater Drainage Systems," and Appendix H, "Recommended Procedures for Design, Construction and Installation of Commercial Kitchen Grease Interceptors" are adopted. (Ord. 1331 § 2 (part), 2004)

Enforcement

The decision to respond with a formal enforcement action generally results when there has been a failure to achieve compliance within a specified time period through less formal means, a review of violation records, and/or in some cases, the advice of counsel. Formal enforcement action shall be considered for each violation or group of violations of a FSEs permit.

Administrative Citations

The City reserves the right to issue Administrative Citations in accordance with the City's Municipal Code, Chapter 14.08.530. Every violation determined to be an infraction is punishable by: (1) a fine not exceeding one hundred dollars for a first violation; (2) a fine not exceeding two hundred dollars for a second violation of the same ordinance; and (3) a fine not exceeding five hundred dollars for each additional violation of the same ordinance within one year. Every violation determined to be a misdemeanor is punishable by a fine not exceeding \$1,000 per day.

Elements of Progressive Enforcement Actions

There are four (4) levels of increasingly significant enforcement actions available to the City which are intended to correct non-compliance with a FSEs discharge permit. Progressive enforcement actions may require increasingly stringent responses to correct repeated or ongoing violations of waste water discharge permits or other local, state, or federal discharge prohibitions. The four actions include: (1) Verbal Notification (2) Advisory Letter, (3) Notice of Violation, and (4) Civil and Criminal Administrative Actions including Abatement Orders.

1. Verbal Notification

Verbal notification is used for initial contact with a FSE when grease removal equipment is not properly maintained.

2. Advisory Letter

Advisory letters shall be mailed by certified mail or hand delivered to the violator within seven (7) days of the City's receiving first notice that a violation of a waste discharge permit occurred.

SEWER SYSTEM MANAGEMENT PLAN

“Notification” occurs immediately whenever an agent for, or employee of, the City is notified that a violation of a discharge permit or other prohibition of local, state, or federal statute or regulation has occurred. The notification may be verbal, telephone, fax, electronic communications, letter, report, written document, or other form of communication.

Advisory Letters may be issued to a FSE for any of the following reasons, but are not limited to:

- Conditions observed during the course of an on-site inspection or routine surveillance which may compromise a FSEs ability to comply with its wastewater discharge permit.
- Failure to properly maintain grease removal devices.

3. Notice of Violation (NOV)

A Notice of Violation is typically issued for one of the following reasons, but is not limited to:

- Conditions observed during the course of an on-site inspection or routine surveillance which may compromise an industrial user’s ability to comply with their wastewater discharge permit.
- Failure to properly maintain grease removal devices.
- Failure to install a required grease removal device.

A. When a violation of a FSEs discharge permit is observed or reported, a Notice of Violation shall be issued to the FSE within seven (7) days of the City receiving first notice that a violation of a waste discharge permit occurred. “Notification” occurs immediately whenever an agent for, or employee of, the City is notified that a violation of a discharge permit or other prohibition of local, state, or federal statute or regulation has occurred. The notification may be verbal, telephone, fax, electronic communications, letter, report, written document, or other form of communication.

B. Within forty-five days of the date of the notice, a plan for the satisfactory correction thereof shall be submitted to the city by the user. The FSEs written response shall describe the specific violation(s) which occurred, the cause of the violation(s), all corrective actions taken to prevent any reoccurrence of the violation(s), and the date those corrective actions were/will be taken.

C. A review of the FSEs written response shall be conducted to determine if its response is adequate and appropriate. Following the issuance of a Notice of Violation, the receipt of the FSEs response, and a review of that response the City may inspect the facility if it is deemed necessary.

D. Upon receipt of a Notice of Violation, the FSE shall have fifteen days within which to file an appeal for the Notice of Violation. Appeals shall be addressed to the WQCP Superintendent.

SEWER SYSTEM MANAGEMENT PLAN

E. Failure to respond to an issued Notice of Violation within the specified time shall result in further enforcement action.

4. Civil and Criminal Administration Actions

Abatement Orders

Upon receipt of an Abatement Order, a FSE shall have ten (10) days from the date of receipt of the Abatement Order to appeal the enforcement action. All appeals shall be submitted, in writing, to the WQCP Superintendent.

Administrative Actions

When a FSE fails to comply with an Administrative Abatement Order, enforcement actions shall increase in either or both of the following manners:

Civil and Criminal Penalties

Any user who willfully or negligently fails to comply with any regulation or condition of a discharge permit or permit issued hereunder, shall be subject to both civil and criminal liability. All enforcement and penalty provisions identified in the San Bruno Municipal Code are in addition to and do not supersede or limit any other civil or criminal remedies. San Bruno Municipal Code § 10.12.500 & 10.12.520 Potential civil and criminal liability shall be as follows:

Civil Liability: Potential civil liability shall include, but not be limited to, declaration of the violation as a public nuisance and strict liability for the sum of ten thousand dollars (\$10,000) for each day or portion thereof, as set forth in San Bruno Municipal Code Section 10.12.520 and abatement proceedings, including the collection of abatement costs, as set forth in San Bruno Municipal Code Sections 10.12.480, 10.12.500 10.12.520 10.12.530 10.12.540 & 10.12.550. In addition, a user may be liable up to twenty-five thousand dollars (\$25,000) a day for each violation, as set forth in California Government Code Section 54740. San Bruno Municipal Code 10.12.520.

In lieu of the civil penalties set forth in California Government Code Section 54740, the City may impose administrative penalties in the following amounts, as set forth in California Government Code Section 54740.5: (1) up to three thousand dollars (\$3,000) for each day for failing or refusing to timely comply with any compliance schedule established by the City; (2) up to five thousand dollars (\$5,000) per violation for each day for discharges in violation of any waste discharge limitation, permit condition, or requirement issued, reissued, or adopted

SEWER SYSTEM MANAGEMENT PLAN

by the City; (3) up to ten dollars (\$10) per gallon for discharges in violation of any suspension, cease and desist order or other orders, or prohibition issued, reissued, or adopted by the City. Furthermore, the amount of such civil administrative penalties that have remained delinquent for a period of 60 days shall constitute a lien against the real property of the discharger from which the discharge originated resulting in the imposition of the civil penalty. California Government Code § 54740.5(d)(5).

Criminal Liability: Criminal liability shall include, but not be limited to, misdemeanor prosecution under San Bruno Municipal Code Section 10.12.510. A person shall be guilty of a separate and distinct offense for each and every day during any portion of which any violation is committed, continued or permitted by any such person, and the user shall be punishable accordingly. San Bruno Municipal Code 10.12.510 and 10.12.550.

Injunction - Whenever a discharge of wastewater is in violation of the provisions of this plan or otherwise causes or threatens to cause a condition of contamination, pollution or nuisance, an injunction may be sought to restrain the continuance of such discharge. The City may petition the Superior Court for the issuance of a temporary or permanent injunction, or both, as the case may be, restraining the continuance of such discharge. The city may also seek an injunction against non-discharge violation of pretreatment standards or requirements. San Bruno Municipal Code § 10.12.530.

APPENDIX 8

System Evaluation and Capacity Assurance Plan Documents

Appendix 8 includes the following:

- 8-1 City of San Bruno's Master Plan Table of Contents

SEWER SYSTEM MANAGEMENT PLAN



Table of Contents

Executive Summary

ES.1 Water System Master Plan Purpose and Benefit (Chapter 1)	ES-1
ES.2 Existing Water System Overview (Chapter 2)	ES-2
ES.3 Master Plan Timeframe and Projected Demands (Chapter 3)	ES-2
ES.4 Available Water Supplies (Chapter 4)	ES-2
ES.5 Developing a Distribution System Hydraulic Model (Chapter 5)	ES-3
ES.6 Establishing the Master Planning Key Assumptions (Chapter 6)	ES-3
ES.7 Key Technical Findings (Chapters 7 and 8)	ES-4
ES.7.1 System Capacity Improvement Program	ES-4
ES.7.2 Operational and Seismic Reliability Improvement Program	ES-6
ES.7.3 Rehabilitation and Replacement Program	ES-7
ES.8 Capital Improvement Program (Chapter 9)	ES-9

Chapter 1. Introduction

1.1 Authorization	1-2
1.2 Report Organization	1-2
1.3 Acronyms and Abbreviations	1-2
1.4 Acknowledgments	1-4

Chapter 2. Existing Water System Inventory

2.1 Water Service Area	2-1
2.1.1 Pressure Zone Boundaries	2-1
2.2 Service Connections and Population Served	2-2
2.2.1 Existing Service Connections	2-3
2.2.2 Existing Population	2-3
2.3 Water Supply Sources	2-3
2.3.1 Surface Water	2-4
2.3.2 Groundwater	2-4
2.4 Water System Facilities	2-4
2.4.1 Surface Water Supply Turnouts	2-5
2.4.2 Groundwater Wells	2-6
2.4.3 Water Storage Facilities	2-7
2.4.4 Booster Pump Stations	2-9
2.4.5 Pressure Regulating Stations	2-10
2.4.6 Distribution System Pipelines	2-13
2.4.7 SCADA System	2-13

Chapter 3. Water Demands

3.1 Service Area Description	3-1
3.1.1 Service Area Overview	3-1
3.1.2 Historical and Future Population	3-1
3.1.3 Number of Service Connections	3-2

SEWER SYSTEM MANAGEMENT PLAN



Table of Contents

3.2 Historical Annual Water Use.....	3-3
3.2.1 Historical Annual Water Consumption	3-3
3.2.2 Unaccounted for Water	3-5
3.2.3 Per Capita Water Use	3-6
3.3 Water Conservation.....	3-7
3.3.1 Existing Water Conservation.....	3-7
3.3.2 Compliance with 20 x 2020 Legislation	3-8
3.4 Peak Water Use	3-9
3.4.1 Maximum Day Water Use	3-9
3.4.2 Peak Hour Water Use	3-9
3.4.3 Summary of Peaking Factors Used in Master Plan Analysis	3-10
3.5 Demand Projections	3-10
3.5.1 Existing and Future Land Use.....	3-10
3.5.1.1 Existing Land Use.....	3-11
3.5.1.2 Future Land Use	3-11
3.5.2 Water Use Projections from Recent Planning Documents	3-12
3.5.3 Unit Water Use Factors.....	3-13
3.5.4 Water Demand at Buildout of the General Plan and Transit Corridors Plan (FY 2029/30)	3-14
3.5.5 FY 2034/35 Water Use	3-15
3.6 References	3-16
 Chapter 4. Water Supply	
4.1 Historical Water Supply Sources	4-1
4.2 Water Supply Projections	4-2
4.3 Water Purchased from the San Francisco Public Utilities Commission	4-3
4.3.1 SFPUC Regional Water System Overview	4-3
4.3.2 SFPUC Water Supply Improvement Program	4-3
4.3.3 2009 Water Supply Agreement.....	4-4
4.3.4 Bay Area Water Conservation and Supply Agency	4-5
4.4 Water Purchased from the North Coast County Water District.....	4-5
4.5 Groundwater	4-5
4.5.1 Groundwater Management	4-6
4.5.2 Groundwater Basin Description	4-7
4.5.3 Aquifer Conditions and Properties of the South Westside Basin.....	4-8
4.5.4 Basin Water Budget Analysis.....	4-9
4.6 Regional Conjunctive Use	4-9
 Chapter 5. Hydraulic Model Development	
5.1 Development of the Hydraulic Model	5-1
5.1.1 Description of the Model and Model Elements	5-2
5.1.2 Pipelines, Nodes, and Junctions.....	5-3
5.1.3 Pipeline Characteristics	5-3
5.1.4 System Elevations.....	5-3
5.1.5 Water System Facilities	5-3
5.1.6 Naming Scheme.....	5-5
5.1.7 Spatially Located Meter Accounts.....	5-5
5.1.8 Water Demand Allocation	5-7

SEWER SYSTEM MANAGEMENT PLAN



Table of Contents

5.2 Hydraulic Model Calibration.....	5-7
5.2.1 Development of Hydrant (C-Factor) Tests.....	5-8
5.2.2 Hydrant (C-factor) Test Results.....	5-9
5.2.3 Hydraulic Model Calibration Findings and Conclusions.....	5-11
Chapter 6. Water System Master Plan Key Assumptions	
6.1 Capacity and Reliability Program.....	6-1
6.1.1 Peak Supply Capacity.....	6-2
6.1.2 Distribution System Pressures.....	6-4
6.1.3 Fire Flow Requirements.....	6-4
6.1.4 Booster Pump Station Capacity.....	6-5
6.1.5 Water Storage Capacity.....	6-5
6.1.6 Pressure Regulating Station Capacity.....	6-7
6.1.7 Water Transmission and Distribution Pipeline Sizing.....	6-7
6.2 Seismic Reliability Program.....	6-8
6.2.1 Ground Shaking Hazards.....	6-8
6.2.2 Liquefaction.....	6-9
6.2.3 Landslide Hazards.....	6-9
6.3 Renewal and Replacement Program.....	6-9
Chapter 7. Evaluation of Existing Water System	
7.1 Existing Water Demands by Pressure Zone.....	7-2
7.2 Existing Water System Facility Capacity Evaluation.....	7-3
7.2.1 Pumping Capacity Evaluation.....	7-3
7.2.2 Storage Capacity Evaluation.....	7-5
7.2.3 Pressure Regulating Station Capacity Evaluation.....	7-7
7.3 Existing Water System Performance Evaluation.....	7-7
7.3.1 Normal Operations - Peak Hour Demand Scenario.....	7-9
7.3.2 Emergency Operations - Maximum Day Demand plus Fire Flow Scenario.....	7-10
7.4 Existing System Capacity and Reliability Improvements.....	7-10
7.4.1 Pipeline Reliability Improvements.....	7-11
7.4.2 Pressure Regulating Station Capacity Improvements.....	7-12
7.4.3 Well, Storage, and Pumping Capacity Improvements.....	7-13
7.4.4 Miscellaneous Capacity Improvements.....	7-13
7.5 Seismic Vulnerability Assessment.....	7-14
7.6 Rehabilitation and Replacement Evaluation.....	7-16
7.6.1 Pipeline Rehabilitation and Replacement Evaluation.....	7-16
7.6.2 Facilities Rehabilitation and Replacement Evaluation.....	7-19
7.7 Summary of Recommended Improvements for the Existing Water System.....	7-21
Chapter 8. Evaluation of Future Water System	
8.1 Projected Water Demands by Pressure Zone.....	8-1
8.2 Future Water System Facility Evaluation.....	8-3
8.2.1 Regional Project Overview.....	8-3
8.2.2 Pumping Capacity Evaluation.....	8-3
8.2.3 Storage Capacity Evaluation.....	8-4
8.2.4 Pressure Regulating Station Capacity Evaluation.....	8-7

SEWER SYSTEM MANAGEMENT PLAN



Table of Contents

8.3 Future Water System Performance Evaluation	8-7
8.3.1 Normal Operations - Peak Hour Demand Scenario	8-9
8.3.2 Emergency Operations – Maximum Day Demand plus Fire Flow Scenario	8-10
8.4 Evaluation of Regional Groundwater Storage and Recovery Project	8-11
8.4.3 Additional Details on the Regional Project	8-11
8.4.4 Put Operations – Maximize the Use of Surface Water	8-12
8.4.5 Take Operations – Maximize the Use of Groundwater	8-13
8.5 Summary of Recommended Improvements for the Future Water System	8-18
8.5.1 Water Service Connections	8-18
8.5.2 Tank and Booster Pump Station	8-18
8.5.3 Pump Stations	8-18
8.5.4 Pipelines	8-19
8.5.5 Pressure Regulating Stations	8-19

Chapter 9. Recommended Capital Improvement Program

9.1 Overview	9-1
9.2 Recommended Potable Water System Capital Improvement Program	9-2
9.3 Capital Improvement Program Implementation	9-3

List of Appendices

- Appendix A. Summary of Hydrant (C-factor) Test Results
- Appendix B. Cost Estimating Assumptions

List of Tables

Table ES-1. Summary of Recommended Capacity Improvement Projects	ES-5
Table ES-2. Summary of Recommended Operational and Seismic Reliability Improvement Projects	ES-7
Table ES-3. Summary of Recommended Rehabilitation and Replacement Improvement Projects	ES-8
Table ES-4. Recommended Implementation Schedule for Capital Improvement Program	ES-10
Table 2-1. Summary of Existing Pressure Zones	2-2
Table 2-2. Existing Number of Service Connections by Customer Sector	2-3
Table 2-3. Surface Water Supply Turnouts	2-5
Table 2-4. Active Groundwater Wells	2-6
Table 2-5. Summary of Groundwater Well Facility Assessments	2-7
Table 2-6. Storage Tank Facilities	2-8
Table 2-7. Summary of Storage Tank Facility Assessments	2-9
Table 2-8. Booster Pump Stations	2-10
Table 2-9. Summary of Booster Pump Station Facility Assessments	2-11
Table 2-10. Pressure Regulating Stations	2-12

SEWER SYSTEM MANAGEMENT PLAN



Table of Contents

Table 2-11. Pipeline Lengths by Diameter	2-13
Table 3-1. Historical and Projected City Population	3-2
Table 3-2. Number of Service Connections by Customer Sector in FY 2009/10	3-2
Table 3-3. Historical Annual Water Consumption by Fiscal Year, mgd	3-4
Table 3-4. Historical Average Annual Water Consumption by Customer Sector	3-5
Table 3-5. Unaccounted For Water	3-6
Table 3-6. Per Capita Water Use, FY 1995/96 through FY 2009/10	3-7
Table 3-7. Adopted Peaking Factors	3-10
Table 3-8. Summary of Potential Residential and Commercial Developments per the General Plan and Transit Corridors Plan	3-12
Table 3-9. Unit Water Use Factors for Projecting Demands	3-14
Table 3-10. Water Demand at Buildout of General Plan and Transit Corridors Plan (FY 2029/30)	3-15
Table 4-1. Historical Production by Source from FY 2005/06 through FY 2009/10, mgd	4-2
Table 4-2. Projected Future Water Demands and Supplies, mgd	4-2
Table 5-1. Preliminary Pipeline C-Factors Assigned in the Model	5-4
Table 5-2. Naming Scheme for Network Elements	5-6
Table 5-3. Spatially Located Meter Results	5-7
Table 5-4. Customer Sector Assignment	5-7
Table 5-5. Hydrant Test Locations and Status	5-8
Table 6-1. Summary of Recommended Water System Performance and Operational Criteria	6-3
Table 6-2. Recommended Fire Flow Requirements	6-6
Table 7-1. Baseline Water Demands for the Existing System Analysis	7-2
Table 7-2. Comparison of Existing and Required Pumping Supply Capacity	7-4
Table 7-3. Comparison of Existing and Required Storage Capacity	7-6
Table 7-4. Comparison of Existing and Required Pressure Reducing Station Capacity	7-8
Table 7-5. Leak Statistics for City Pipelines (2000-07 and 2009-10)	7-17
Table 7-6. Recommended Existing System Capacity and Reliability Improvement Projects	7-22
Table 7-7. Recommended Seismic Improvement Projects	7-23
Table 7-8. Recommended Rehabilitation and Replacement Improvement Projects	7-24
Table 8-1. Water Demands for the Future (FY 2034/35) System Analysis	8-2
Table 8-2. Comparison of Existing, Proposed, and Required Pumping Supply Capacity	8-5
Table 8-3. Comparison of Existing, Proposed, and Required Storage Capacity	8-6
Table 8-4. Comparison of Existing, Proposed, and Required Pressure Regulating Station Capacity	8-8
Table 8-5. Representative Winter Day Water Demands for the Existing Water System	8-14
Table 8-6. Representative Winter Day Water Demands for the Future (FY 2034/35) Water System	8-15
Table 9-1. Recommended Capacity and Reliability Capital Improvement Projects	9-5

SEWER SYSTEM MANAGEMENT PLAN



Table of Contents

Table 9-2. Recommended Seismic Capital Improvement Projects	9-6
Table 9-3. Recommended Rehabilitation and Replacement Capital Improvement Projects	9-7
Table 9-4. Recommended Implementation Schedule for Capital Improvement Program	9-8

List of Figures

Figure ES-1. Recommended Existing System Capacity Improvements	ES-12
Figure ES-2. Recommended Existing System Reliability Improvements	ES-13
Figure ES-3. Recommended Existing System Rehabilitation and Replacement Improvements	ES-14
Figure ES-4. Recommended Water System Improvements Future System	ES-15
Figure 2-1. City Limits Boundary	2-15
Figure 2-2. Pressure Zones	2-16
Figure 2-3. Existing Water Distribution System	2-17
Figure 2-4. Existing Water System Schematic	2-18
Figure 3-1. Historical and Projected City Population	3-17
Figure 3-2. Population, Per Capita Water Use, and Population	3-18
Figure 3-3. Existing Land Use	3-19
Figure 3-4. General Plan Land Use	3-20
Figure 3-5. Anticipated Development Areas	3-21
Figure 4-1. SFPUC Water System Improvement Program Projects	4-11
Figure 4-2. Westside Groundwater Basin Site Vicinity Map	4-12
Figure 4-3. Bedrock Elevation	4-13
Figure 4-4. Groundwater Elevation Contours Primary Production Aquifer, Fall 2009	4-14
Figure 5-1. Spatially Located Water Demands	5-12
Figure 5-2. Hydrant Test Locations	5-13
Figure 7-1. Peak Hour Pressure Existing System	7-25
Figure 7-2. Recommended Existing System Fire Flow Criteria	7-26
Figure 7-3. Available Fire Flow Existing Maximum Day Demand Condition	7-27
Figure 7-4. Comparison of Available Fire Flow and Fire Flow Criteria – Existing System	7-28
Figure 7-5. Recommended Water System Improvements Existing System	7-29
Figure 7-6. Available Fire Flow – Existing Maximum Day Condition with Improvements	7-30
Figure 7-7. Comparison of Available Fire Flow and Fire Flow Criteria – Existing System with Improvements	7-31
Figure 7-8. Leaks Statistics	7-18
Figure 7-9. Recommended Existing System Capacity Improvements	7-32
Figure 7-10. Recommended Existing System Reliability Improvements	7-33
Figure 7-11. Recommended Existing System Rehabilitation and Replacement Improvements	7-34

SEWER SYSTEM MANAGEMENT PLAN



Table of Contents

Figure 8-1. Base Future System Facilities	8-20
Figure 8-2. Peak Hour Pressure Future System	8-21
Figure 8-3. Peak Hour Pipeline Velocity Future System	8-22
Figure 8-4. Recommended Future System Fire Flow Requirements.....	8-23
Figure 8-5. Available Fire Flow – Future Maximum Day Demand Condition	8-24
Figure 8-6. Comparison of Available Fire Flow w/ Required Fire Flow	8-25
Figure 8-7. Location of Existing and Potential Well Sites for Regional Groundwater Storage and Recovery Project.....	8-26
Figure 8-8. Simplified System Schematic.....	8-27
Figure 8-9. Recommended Water System Improvements Future System.....	8-28
Figure 9-1. Recommended Existing System Capacity Improvements	9-10
Figure 9-2. Recommended Existing System Reliability Improvements.....	9-11
Figure 9-3. Recommended Existing Rehabilitation and Replacement Improvements	9-12

APPENDIX 9

Monitoring, Measurement, and Program Modifications Documents

Appendix 9 includes the following:

- 9-1 City of San Bruno's Fiscal Year System Information, Financial Information, Sewer Maintenance, and Performance Measures
- 9-2 Historical Summary of Sanitary Sewer System Overflows

SEWER SYSTEM MANAGEMENT PLAN

Appendix 9-1

City of San Bruno's Fiscal Year System Information, Financial Information, Sewer Maintenance, and Performance Measures

Wastewater Operating Budget (last 5 years)

Budget Year	Budget Amount
2013-14	\$ 7,541,318
2012-13	\$ 7,545,674
2011-12	\$ 7,363,447
2010-11	\$ 7,094,177
2009-10	\$ 6,881,012

SEWER SYSTEM MANAGEMENT PLAN

Appendix 9-2 **Historical Summary of Sanitary Sewer System Overflows**

SSO Numbers by Year **(last 5 years)**

Calendar Year	San Bruno SSOs
2008	54
2009	52
2010	41
2011	14
2012	12

APPENDIX 10

SSMP Program Audit Documents

Appendix 10 includes the following:

- 10-1 Audit Procedure
- 10-2 Audit Form

SEWER SYSTEM MANAGEMENT PLAN

Appendix 10-1 Audit Procedure

Audit Form San Bruno WW Division SSMP Audit Procedure

The WW Division will monitor and review sewer performance metrics on an annual basis and the status of each element of the SSMP on an annual basis following the adoption of this SSMP. Formal SSMP audits will be conducted every year following the adoption of this SSMP as required by the SF Bay Regional Board.

The Maintenance Services Manager will generate the following information and system metrics on an as needed basis and annually for the purpose of tracking, monitoring and adjusting the performance of the WW Division's SSMP activities.

- System Information
- Sewer Maintenance
- Performance Measures

A primary focus in the evaluation of WW Division information and system metrics will be the elimination of preventable SSO and reduction of the impact of any SSOs that occur.

The Deputy Public Services Director will perform periodic internal audits to determine the effectiveness of each element of the WW Division's SSMP using the San Bruno WW Division Audit form (Attachment A).

The WW Division audit schedule is as follows:

- Annually following the adoption and approval of this SSMP.
- Every five years from the date of adoption prior to the update of the SSMP and approval. The SSMP update will include all significant program changes that have occurred following the last City Council certification/approval.

The Deputy Public Services Director will initiate/direct corrective action to be taken when and if SSMP improvements are needed between/during periodic internal audits.

When significant changes are made to the WW Division's SSMP that require re-certification, the Maintenance Services Manager will enter the data in the online SSO database and mail the form to the State Water Board.

SEWER SYSTEM MANAGEMENT PLAN

Appendix 10-2 Audit Form

City of San Bruno Public Works Department - Wastewater Division

SSMP Audit Checklist

Audit Date:

Audit Team Members:

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
1	Goals	The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system.				
2	Organization	The SSMP must identify:				
	(a)	The name of the responsible or authorized representative				
	(b)	The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(c)	The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable				
3	Legal Authority	Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:				
	(a)	Prevent illicit discharges into its sanitary sewer system				
	(b)	Require that sewers and connections be properly designed and constructed				
	(c)	Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency				
	(d)	Limit the discharge of fats, oils, and grease and other debris that may cause blockages				
	(e)	Enforce any violation of its sewer ordinances				
4	O&M Program	The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(a)	Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities				
	(b)	Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders				
	(c)	Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(d)	Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained				
	(e)	Provide equipment and replacement part inventories, including identification of critical replacement parts				
5	Design and Performance Provisions					
	(a)	Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems				
	(b)	Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects				
6	Overflow Emergency Response Plan (OERP)	Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:				
	(a)	Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(b)	A program to ensure an appropriate response to all overflows				
	(c)	Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification				
	(d)	Procedure to ensure Agency staff are aware of, are trained, and follow OERP				
	(e)	Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained				
	(f)	Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(g)	A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge				
7	FOG Control Program	Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:				
	(a)	An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG				
	(b)	A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(c)	The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG				
	(d)	Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements				
	(e)	Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance				
	(f)	An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section				
	(g)	Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above				
8	System Evaluation and Capacity Assurance Plan	The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(a)	Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events				
	(b)	Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria				
	(c)	Capacity Enhancement Measures: The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
	(d)	Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.				
9	Monitoring, Measurement, and Program Modifications	The Enrollee shall:				
	(a)	Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities				
	(b)	Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP				
	(c)	Assess the success of the preventative maintenance program				
	(d)	Update program elements, as appropriate, based on monitoring or performance evaluations; and				
	(e)	Identify and illustrate SSO trends, including: frequency, location, and volume				

SEWER SYSTEM MANAGEMENT PLAN

Sec	Title	Requirement	Improvement Needed Yes / No	Narrative of Description of Improvement Needed	Scheduled Improvement Date	Responsible Person
10	SSMP Program Audits	As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements including identification of any deficiencies in the SSMP and steps to correct them				
11	Communications Program					
		The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented				
		The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system				

APPENDIX 11

Communication Program Documents

Appendix 11 includes the following:

11-1 Communication Plan

SEWER SYSTEM MANAGEMENT PLAN

Appendix 11-2 Communication Plan

City of San Bruno's SSMP Communication Program

Introduction

The overall goal of San Bruno's communications plan and its objectives are to deliver key messages to the various stakeholders regarding the City's Sewer System Management Plan (SSMP) and status of its implementation.

Goal

Communicate key messages about the City's Sewer System Management Plan (SSMP) to the following stakeholders:

- City Council
- Internal staff
- City's rate payers
- Regulatory agencies and Non-Governmental Organizations (NGOs) as needed

Objectives

Communications objectives are:

- To develop a systematic approach for communicating SSMP requirements, progress, and performance.
- To provide a channel for public input as the SSMP is developed and implemented.
- To communicate with enough frequency and information so that the SSMP is supported by the City Council, internal staff, the ratepayers, and other agencies.
- To inform internal and external stakeholders of the SSMP requirements and strategies to reduce sanitary sewer overflows (SSOs).
- To inform the City Council and the ratepayers of the SSMP successes in terms of City of San Bruno's SSO Reduction Program.
- To provide outreach to the community to inform them of the work the City is doing to reduce SSOs.

Key Messages

Key messages will focus on the City's SSMP requirements and actions being taken by the City to protect the public health, the environment.

SEWER SYSTEM MANAGEMENT PLAN

The following key messages will be considered:

- Purpose of SSMP, requirements and status of City's program
- Protection of public health.
- Protection of the environment and the water quality.
- Status of City's SSOs.
- Channel for public input.
- Best Management Practices (BMPs) for residential and commercial customers.
- Wastewater collection system improvements such as replacement of existing pipeline and pumping station infrastructure and construction of new infrastructure.
- Maintenance and operation activities that led to reductions in the number and volume of SSOs.
- Potential rate impacts

Communication Strategies

Strategies that may be used for communication will include some or all of the following:

- Create Public Services news letter
- Post information on the City's website
- Public outreach meetings
- Use of local radio station and news paper
- Informational brochures and flyers
- Bill stuffers
- City Council SSMP status reports
- Link to State Water Resources Control Board (SWRCB) Sanitary Sewer Overflow Program web-site and
- Power Point presentations, written and verbal reports

Stakeholders and Communications Strategy

1. City Council - Strategy

Staff will provide reports to the City Council in terms of SSMP requirements, resources needed, and completed activities and reduction of SSOs.

. These reports will include the following as appropriate:

SEWER SYSTEM MANAGEMENT PLAN

- Purpose of SSMP
- Status of City's overall program.
- Progress of the Operations and Maintenance staff on meeting performance metrics related to the SSMP requirements and reduction of SSOs.
- FOG control measures in terms of residential and commercial BMPs and source control.
- Customer service in terms of: 1) response time to mitigate SSOs, 2) reduction in the number and quantity of SSO spills, and 3) improved customer satisfaction.
- Capital improvement projects.
- Proposed rate increases.

2. Internal Staff - Strategy

City management will educate staff on the WDR SSMP requirements and their role and respective responsibilities in implementing various elements of the SSMP.

The internal staff training should include the following:

- Overall understanding WDR purpose.
- Specific understanding of each of the eleven SSMP elements.
- Roles and responsibilities for SSMP elements addressed in their work classification/assignments.
- Periodic reports on the progress in reducing SSOs

3. Ratepayers - Strategy

City staff will provide relevant information about the SSMP and SSO Reduction Program to rate payers and provide a channel for public input.

The ratepayer/public information may include the following:

- Purpose of SSMP
- Status of Agency's overall program.
- FOG control measures in terms of residential and commercial BMPs and source control.
- Capital improvement projects (CIP).
- Possible rate impacts and any proposed rate increases.

4. Regulators and NGOs - strategy

SEWER SYSTEM MANAGEMENT PLAN

Staff will communicate with Regulatory Agencies as required. The following tools can be used to achieve this requirement:

- Joint Power Agreement
- Inter-Agency Agreement
- Mutual Aid Agreement
- Periodic meetings to review the City's program, progress in reducing SSOs, compliance issues related to the satellite system, and possible rate impacts
- The City's will communicate the status of their SSMP to SWRCB by certifying each completed element of their SSMP in the California Integrated Water Quality System (CIWQS).
- The City will report the number and size of SSOs, causes for each SSO, and steps that are being taken to reduce those SSOs to the State's CIWQS data base.
- The same SSO information will also be communicated to San Francisco Regional Water Quality Control Board (RWQCB).

Table 1 provides a summary stakeholder communication strategies. What their area of interest are and who may be best to communicate the specific message. It identifies the appropriate communication timeline and types of actions to best communicate with specific stakeholders:

SEWER SYSTEM MANAGEMENT PLAN

Table 1 - SSMP Communications Strategies

<u>Stakeholder</u>	<u>Areas of Interest</u>	<u>Strategy</u>	<u>Who</u>	<u>Timeline</u>	<u>Actions</u>
City Council	Environmental Stewardship	Council information updates	Management	Annually	Power-point Presentation
	Rates and fees	Briefings with Council	Management	Annually	Workshop
	SSO Performance Targets	Briefings and reports	Operations Staff	Semi-Annually	Web Site and Annual Report
Internal Staff	Policies, Ordinances, Overview of WDR and SSMP Requirements	Council Meetings, SSO Reduction, Progress Reports and Staff meetings	Management & Legal Staff, Industrial Pretreatment Staff Management	Quarterly Semi-Annually and Annually	Web Site, News Letter, and Power-point Presentation
	SSMP elements and employee Roles and Responsibilities	Training Sessions	Management, Supervisory staff And Consultants	As Needed	Informal and Formal training
Ratepayers And NGOs	SSMP Status SSOs/100 Mi	City Web Site News letter	Management Communications Staff,	Continually Semi-Annually	Web Site, News Letter, Brochures, door hangers and Billing Inserts
	FOG control	Brochure/bill stuffers	Industrial Pretreatment Staff	As Needed	BMP
	CIP Rates and fees Capacity limits Restrictions and/or requirements	News Letter Bill stuffers, Newsletter and Web Site Agreements	Engineering Public Information Staff Industrial Pretreatment Staff	As Needed and required Annually	Articles Public outreach meetings and annual report Meetings
Regulatory Agencies	SSMP Compliance, SSO status and Catastrophic events	CIWQS, Reports and Audits	Management and Legally Responsible Official (LRO)	As Needed and Annually	Electronic and Written reporting, Telephone Communication and Meetings

Strategy

Strategies and Actions lead to --

Achieving Objectives which are steps toward --

Accomplishing an overall Goal

SEWER SYSTEM MANAGEMENT PLAN


Appendix 11-2 Plumbers and Contractor Outreach Material

Installation Requirements	Inspection Requirements
<ul style="list-style-type: none">• Cleanout assembly required to be cast iron.• Piping for sewer line can be any material allowed by plumbing code.• Sewer piping must be set on firm ground and have a minimum 1/4 inch per foot slope.• When joining different types of drainage piping together, use approved transition couplings only.• A two-way clean out is recommended at or near the building.• Unusual conditions or obstructions will be addressed on an individual basis.• For final inspection all excavation backfilled and compacted, landscape restored, concrete work complete.	<ul style="list-style-type: none">• There will typically be two inspections, the first when repairs have been completed and the system is under test, the final inspection will be after backfill and cleanouts are completed.• Prior to backfill, the replaced sewer line and cleanout shall remain accessible for inspection.• Building sewers shall be tested by plugging the piping at its point of connection with the public sewer system, and completely filling the sewer line with water to a point past new work. The sewer system can also be tested by approved equivalent low-pressure air test.• A pop-up cap is required at the city cleanout location and shall be protected by an approved box. The top of the pop-up cap (backflow release) must be set a minimum of 3 inches below the bottom of box lid to allow cap space to open if a blockage occurs downstream.• Once the cleanout has been installed and approved and there is still blockage on the city side of the sewer lateral you can call (650) 616-7160 for assistance.

Smoke and Carbon Monoxide Alarms Inspection Requirements

Regardless of the type of permit obtained an inspection of the smoke and carbon monoxide alarms will be required. The inspector will not be able to final any permit without verifying that the alarms are properly installed and working.

Sewer Repairs & Cleanout Installation



City of San Bruno

Community Development Department

Building Division

567 El Camino Real
San Bruno, CA 94066
Phone (650) 616-7074
Fax (650) 873-6749
building@sanbruno.ca.gov
www.sanbruno.ca.gov

Sewer Repairs &

Cleanout

Installation



Residential Permit

Requirements



City of San Bruno

Community Development
Department

Building Division

567 El Camino Real

San Bruno, CA 94066

Phone (650) 616-7074

Fax (650) 873-6749

building@sanbruno.ca.gov

www.sanbruno.ca.gov

SEWER SYSTEM MANAGEMENT PLAN

Sewer Repairs & Cleanout Installation

A plumbing permit is required when repairing or replacing a sewer line, or when installing a cleanout.

If you have a blockage, do not continue using plumbing fixtures. The property owner can be held responsible for ground or storm water contamination.

An inspection of the materials used, the installation, and a test of the building sewer shall be approved before covering any work. *Be sure that you know what the required set back is for the sewer clean out location before starting installation.* The set back requirement varies for different streets.

For laterals located in backyards the setback is within 5 feet of rear fence/property line. If there is no city clean out or it is in wrong location the property owner will be responsible for the entire lateral to main. When obtaining permit request set back information for clean out location. San Bruno will maintain sewer lateral up to the property line, provided there is a City approved cleanout in the correct location and in good working order. The property owner is responsible for all maintenance within the property. Do not perform any work in public right of way without an encroachment permit from Public Works.

